THE

MONTHLY REVIEW,

For APRIL, 1803.

ART. I. *Travels in Italy*, by the Abbé Barthélémy, Author of the Travels of Anacharsis the Younger; in a Series of Letters written to the celebrated Count Caylus. With an Appendix, containing several Pieces never before published, by the Abbé Winkelman, Father Jacquier, the Abbé Zarillo, and other learned Men. Translated from the French. 8vo. pp. 420. 8s. Boards. Robinsons. 1802.

IT is not the malignity of envy alone which contributes to shade the memory of departed merit; since the rapacity of heirs, or even the blind partiality of friendship, has too often brought discredit on acknowleged worth and talents. The literary fame of the Abbé Barthélémy might have safely reposed on a fair and lasting monument, the result of many and laborious vigils: but, in committing to the press the posthumous letters which now invite our attention, M. Sérieys (the Editor) boasts of the genuine service which he has rendered to literature and the arts. We rather fear that he has disappointed a very numerous class of readers, and conveyed little distinct information to those who compose the limited circle of professed antiquaries. We doubt not that the letters were penned by the elegant scholar whose name they bear; nor do we deny that they manifest a spirit of enthusiastic and persevering research, a patience of minute erudition, and a few strokes of Attic wit and Gallic sprightliness: but we cannot believe that their author ever intended that they should see the light, much less that they should be presented to the public under the title of *Travels in Italy*. Absorbed in the contemplation or collection of antient remains, the Abbé transmitted frequent but hasty and imperfect hints to his friend Count Caylus; whose congenial taste and character he admired, and whose impatience he was willing to gratify by notices of the leading objects of his favourite pursuits; reserving detailed discussion for the ease and leisure of conversation. We need not wonder, then, if the public should complain of a sameness of subject which

pervades these letters; nor if the adept who resorts to them, in all the fondness of expectation, should be more tantalized than instructed.

Of the few passages to which the above strictures do not apply, we beg leave to quote one relative to the *greatest curiosity* in the Abbé's collection—an *honest*, *learned*, and *merry* cardinal:

'I trouble you with another letter, my dear count, but it is on a subject of importance to the academy. The place of foreign academician was vacated by cardinal Quirini, of typographic memory. It became a question, whether, as it has not the title of *honorary*, cardinal Passionei would accept it. I was desired by the academy, or rather by some of our brother members, to address him on this particular. I have done so; and he has answered, like a man of sense, that the place flatters him more than those follies of rank and title, which either signify nothing, or else signify too much, of which true merit has no need, and which are too heavy a burden for borrowed merit to bear.'—

'I shall say nothing to you of his birth, his dignities, or even his place of librarian to the Vatican—circumstances splendid in themselves, but which he overlooks, and which are certainly beneath his real merit. But I will tell you of his familiarity with all kinds of learning; of the protection which he affords to talents; of a forty years' correspondence with all the literati of Europe; of the particular acquaintance that he formerly had with Renaudot, Longuerue, Boileau, Reland, Cuper, Gronovius, and many other great men, who on numberless occasions consulted him, and who had the most singular veneration for him. I will tell you of an immense library which he has collected, in which all the learned at Rome find infallible assistance, and with which he is as well acquainted, as you are with antiquity and the arts. I will tell you of the great pains he has taken to augment the valuable store of antiquities in the Capitol, of the enlightened taste which he has in that respect acquired, and of a considerable collection of antique inscriptions, which he possesses at his country house, and which he is going to publish. I would tell you also of the particular esteem he has expressed for count Caylus, if I did not fear, that the idea of a personal motive might injure his cause with you. But what will influence you most is his marked character: a habit of truth and frankness, which has procured him the hatred of most of the cardinals; a habit of firmness, which renders him the dread of the religious societies; a habit of probity, that has been always acknowledged, even in a country where craft and hypocrisy disguise every virtue and every vice. Do you wish for more? I will give you another still stronger trait. He completely fuddled us yesterday with a most excellent wine, which he keeps expressly for the pleasure of men of letters, whose curiosity may bring them into this barbarous country.'

With this finished picture, we are tempted to contrast a rough sketch by the President de Brosses, an account of whose enter-

entertaining letters appeared in the supplementary numbers of our 33d and 34th volumes, N. S.

" Passionei of Fossombrone, nuncio in Switzerland, and at Vienna, a great admirer of German genius, secretary to the briefs—open and plain in his manners, and very free in conversation—has a sovereign contempt of the stately demeanour of his brother cardinals, is little esteemed by several of them, for whom he entertains still less regard. Some accuse him of veiling duplicity under a shew of extreme frankness.—He affects much the character of a man of letters."

On a subject so curious yet so little understood as Etruscan antiquities, we are glad to collect even scraps, when they fall from the hand of a master:

' I have applied myself to Etruscan literature, reading what has been said of it, and ruminating on what might still farther be said. I was on the point of passing a week at Cortona, for the purpose of copying the tables of Eugubio, of which an exact resemblance has been engraved from the originals, under the direction of Buonaroti. I have transcribed two of them. There is another similar copy, I have been told, at Rome, which I am endeavouring to find. You will no doubt tell me, they have been published; but I have no faith in books, after what I have so often seen. I read the Etruscan language tolerably well, which has furnished me with many new ideas.

' Its origin, as you know, is yet to be found. I shall not discover it; but, as I travel along, my mind is fully occupied with the subject, and it affords me the truest pleasure. I shall bring with me all the books that have been written upon it, of which not a twentieth part are known in France. I shall not detail to you the civilities I received from the academicians of Cortona. The walls of that town are very ancient, and are supposed to have been erected by the Etruscans. Stones of an enormous size compose the foundation. Take notice, that I respect the Etruscans as profoundly as you do the Egyptians. Which ought to have the preference, will be a point of frequent dispute between us; and, when I get into a passion, I shall address you in the following terms: *Esunu inumek, pircigitu.*'

The editor of these letters has eked out the volume by an appendix of nearly 200 pages, consisting of eleven miscellaneous papers.

Nos. I. and II. contain a few additional circumstances with regard to the early part of the Abbé's excursion into Italy.

III. Some learned and ingenious memoranda relative to a MS. at Bologna, on the art of applying colours to glass.

IV. The curious reader will probably regard this number as one of the most interesting portions of the work; for it comprizes the Abbé Barthélémy's notices of the cabinet of Portici, and the observations of Count Caylus and other learned antiquaries on the ruins of Herculaneum: but they will not

bear abridgement, and are yet too long for insertion in our pages.

V. A short account of the literary labours of Mazzochi.

VI. We have been too much entertained with M. Barthélémy's own account of his first interview with Baïardi, not to give it a place here.

" Baïardi, that vast and indefatigable compiler, respectable from the qualities of his heart, and terrible by his memory to those who hear him talk or venture to read him, had cultivated every species of literature, and collected in his head an enormous though indigested mass of knowledge, which escaped from him confusedly. He set out with a general catalogue of the remains preserved at Portici, in one volume *folio*; and as the engravings, which should represent them, were not yet ready, he obtained the king's permission to place at the head of the great commentary a preface, intended to point out the epoch, the consequences and the use of the researches at Herculaneum. He published the first part of this work in *seven volumes quarto*, without having entered upon his subject.

" I shall depict his manner, as a guide to those who may be tempted to imitate him. An explainer of these antiquities should make known their proportions; what means then must he employ?—Here a long discussion on the measurement of the Assyrians, the Babylonians, the Persians, the Greeks and the Romans, is introduced. The monuments were the greater part drawn from the ruins of Herculaneum: this name, the same as that of Heraclea, was given to a number of towns: all these towns therefore are spoken of, with a digression into the field of ancient geography. Herculaneum was founded by Hercules; but there were several heroes of that name, the Tyrian, the Egyptian, the Grecian, &c., and accordingly their respective achievements must be enumerated, and it must be ascertained to whom our Herculaneum owed its origin: and here we have another digression into the regions of mythology.

" It is easily seen, that researches like these would soon bring the author to the end even of a dozen volumes; unfortunately he was desired to stop in his glorious career; and some time after he returned to Rome, where I went to see him. I asked him if he had finished his Preface: he answered, that he had suspended it for a while, and that, to divert himself in the mean time, he was employed in an abridgment of universal history, which he should comprize in twelve volumes duodecimo, and that he should begin with the solution of a very important problem to history and astronomy, which was the fixing the point of the heavens in which God placed the sun at the creation of the world. He had just discovered this point, and marked it out to me upon the celestial globe.

" I have perhaps already been too diffuse upon this signor Baïardi; but as I write for myself only, or at best but for a few friends, I wish to give a sketch of his character, and recount to myself the first visit that I made him at Naples. I found him in a large hall; a violent cold kept him on a sofa, the appearance of which was a proof of the length of its services. He was dressed in such antique garments,

garments, that one might fairly have taken them for the spoils of some ancient inhabitant of Herculaneum. He was at work with his amanuensis. I begged him to proceed, and I sat me down on the foot of the sofa. Certain monks of Calabria had been consulting him on an heresy that began to spread in their neighbourhood. They had just learned, that one Copernicus had maintained, that the earth moved round the sun. 'What then was to become of that passage in scripture, which declared the earth immoveable, and of that Joshua, who made the sun to stand still? to say nothing of the testimony of our senses, or how we were to keep ourselves from falling, if our heads all night long were downwards?' The prelate answered diffusely and learnedly to all these questions, rescued the honour of the holy books, pointed out the laws of gravity, opposed the testimony of the senses, and concluded by advising the monks not to trouble the ashes of Copernicus which had been so long cold, but to sleep on themselves in the same tranquillity they had hitherto enjoyed.

"Having finished his answer, he renewed his apologies, and I informed him, that being sent into Italy by the king of France in search of such medals as were wanting to the royal cabinet, of which I had the care, I had added to this duty another, that of becoming acquainted with men the most distinguished for their learning. Upon this he pulled off his cap, redoubled his civilities, coughed a long while, and then begged leave to introduce to me signora Maria Laura, his very old friend, whose virtues equalled her learning and talents, who understood latin, greek, and hebrew, designed and painted like Apelles, played on the lyre like Orpheus, and worked embroidery like the daughters of Minos. This eulogy was not finished when this signora Maria Laura made her appearance. Her age might be from sixty to sixty-five years, and his from sixty-five to seventy.

"In the course of the conversation, he assured me, that he was descended from the chevalier Bayard, and that he was a Frenchman, not only by birth, but from inclination also. He then complained of the manner in which the works at Herculaneum were conducted, of the negligence of the ministry with respect to the manuscripts, and of the jealousy excited against himself by the distinguished treatment which he had experienced from the king. By some accident or other I mentioned count Caylus, at which he cried out, 'What! you know the count? he is my very good friend. Do you know, signora Laura, this count Caylus is one of the greatest noblemen in France; one of the most learned men in the world; he presides over all the academies in Paris, is the protector of all the arts, understands every thing, writes upon every thing, and his works are the admiration of all Europe.' Then abruptly addressing himself to me, he says, in badly accented French, 'What has he written, this Caylus? I have never seen any of his works:' and without waiting for my answer he rung the bell, and made the servant bring in a large box of papers, which I found was a collection of latin poems. He proposed reading to me a piece or two: 'I should be delighted,' said I, 'but you have so bad a cough, signor.' He answered, that he would sacrifice every

thing to the pleasure of affording me some amusement; and with this view he chose a poem entitled, *an anatomical description of the brain.* Exclusive of my ignorance of the subject, the manner in which the Italians pronounce latin is so very different from ours, that the charms of his verse were wholly lost upon me. Maria Laura, who perceived it, interrupted him when he had read about a hundred verses, by observing, that so fine a subject, to be properly felt, ought to be studied profoundly, and proposed, that he should read instead of it his *Fountain of Trevi.* 'Signora is in the right,' says he to me; 'you come from Rome, you must have admired often this charming fountain; I was there when it was discovered, the *æstro poëtico* seized upon me, and I have diffused it pretty copiously over the following piece.' Again I reminded him of his cough, but it was in vain, and I had no alternative but to listen, &c."

No. VII. contains some curious remarks of the Abbé Zarillo and Father Paciandi, on the counterfeit paintings of Guerra.

VIII. Copy and translation of a letter from Count Rezzonico to Count Caylus, relative to disquisitions on the works of the two Plinys.

IX. Translation of a dissertation on the antiquities of Rome, by the Abbé Barthélémy; long since published in the memoirs of the Academy of Inscriptions and Belles Lettres.

X. Father Jacquier's measurement of the Coliseum.

XI. In this number, will be found an interesting outline of Travels in Italy, on the plan of those of Anacharsis in Greece:

'This subject (says the Abbé) exhibited to my view pictures so rich, multifarious, and instructive, that I could with difficulty suppress the desire I felt of entering upon it: but perceiving afterwards, that it would require a species of study that was new to me, and recollecting, that an excursion into Greece about the time of Philip, father of Alexander, without drawing me out of the track of my ordinary occupations, would afford me an opportunity of comprising in a given space every thing interesting in the Grecian history, as well as all the details of the sciences, arts, religion, manners, and usages, with which history does not burden itself, I eagerly embraced this idea, and after revolving it for a time in my mind, I began my task in 1757, immediately after my return from Italy.'

As an English edition of the Abbé Barthélémy's memoirs of his own life is in the press, we forbear to transcribe the concluding pages of this performance.

Our extracts render it unnecessary to dwell on the merit of the translation; which, if not a model of English pure and undefiled, is, nevertheless, intitled to a creditable rank among performances of a similar description.

Muir.

ART.

ART. II. *Naval Chronology*; or, An Historical Summary of Naval and Maritime Events, from the Time of the Romans, to the Treaty of Peace 1802. With an Appendix. By Isaac Schomberg, Esq. Captain in the Royal Navy. 8vo. 5 Vols. 2l. 2s. Boards. Egerton. 1802.

As we admit the account of this work, given by its author, to be just and correct, we shall submit it to our readers. He observes;

'It often happens that men who are bred to the naval and military profession, when unemployed in the service of their country, find themselves at a loss for some occupation to fill up the great vacuum resulting from the want of those professional and active pursuits to which they have been so much accustomed. There are no doubt many who from age, infirmities, and length of service, wish to retire in ease and comfort, and whose situation requires that certain degree of relaxation, which the fatigues of service and change of climate may have rendered so necessary. Still, among the number, there are several to whom we are much beholden, for having employed not only their professional, but literary, abilities to the improvement and advantage of the respective services—a pleasure and satisfaction which every man must feel who is a sincere and zealous lover of his country.

'Impressed with these ideas, and urged on by such examples, I was induced to devote my leisure moments in compiling the following sheets; having frequently, in the course of service, experienced the great utility that might be found in a chronological abridgement of the naval history, with other maritime and nautical events, not only as a work which might afford some entertainment and instruction, but more particularly as a book of reference.'—

'As it will in a great measure shew the rise and progress of the British navy, I judged it necessary to commence its history at so early a period as that in which the Britons were constantly exposed to invasions from their neighbours.'

We are told that the dominion of the sea

'Was insisted on and confirmed by Edgar the Great, who compelled all the kings of Britain and the adjacent isles, to acknowledge his right and authority. The naval superiority and power which Great Britain has maintained ever since that period, notwithstanding the various obstinate disputes which have caused so much slaughter, have been supported by her in opposition to the united maritime powers of Europe.

'It is an object of amusement and utility for sea officers to be acquainted with the times of invention and introduction of the many mathematical and nautical instruments, charts, &c. by which we are enabled to traverse the immense ocean, in almost perfect security. The near approach to the discovery of the longitude in these modern days, by the ingenuity, industry, and astronomical abilities of Mr. Witchel's lunar observations, and Mr. Harrison's invention of the time-keeper, have proved truly beneficial to mariners.

'The numerous adventurers both of our own and other nations, to whose persevering and indefatigable labours, we are so much indebted for having explored the then unknown seas, and enlightened us by their various and useful discoveries, as well as those distinguished British circumnavigators, Drake, Anson, Byron, Wallis, Carteret, Furneaux, Vancouver, and the ever-memorable Cook are worthy of a distinguished place in the records of history.

'The events and occurrences are curtailed as much as circumstances would permit, in order that the work may not be extended more than was absolutely necessary; those during the famous Dutch wars, and in the two last, are deserving our particular observation, and are more detailed. The original plan was, to have comprised it in three volumes, and to end the 31st of December 1800, had not the prospect of peace, and the signing its preliminary articles, encouraged me to bring it up to that period. This, with the many heroic exploits which have been performed during the last war, are so deserving of record, that I should have considered myself very remiss in not giving them that place in history which they so justly merit, and which is due to the names and characters of those gallant men who have borne so active and conspicuous a part in adding immortal honours to the British navy.

'By extending the work to two more volumes, I have also been able to introduce many useful state papers, together with the opinion and judgment of Sir William Scott in many interesting prize causes in the Court of Admiralty particularly that on the right of search of neutrals by the belligerent powers.

'The Appendix is given in two separate volumes, in order the more readily to refer to any particular occurrence. It contains the state of the royal navy of Great Britain, its various successes and losses, with a comparative view of those of other powers; a list of fleets, squadrons, lines of battle; an account of the different offices in the naval department, with the names of those noblemen and gentlemen who have served in each; a list of the admirals and post-captains who have borne commissions in the royal navy, with an account of any important service they have performed, besides other useful information.'

Captain S. adds,

'The candour of my readers will, I should hope, be blind to errors, which may too often occur, and expose my humble production to censure and criticism; but when they consider that it is from the pen of one, whose profession requires so early an introduction, that it interferes with those pursuits of classical learning, which are necessary qualifications to enable him to appear before the public as an author, and who has undertaken this work to fill up those leisure hours which were unemployed by his country; I am persuaded they will have good humour enough to pass over faults which might be deemed inexcusable in any other situation.

'Should it, in general, meet the approbation of not only the officers in the royal navy, but all those who are conversant in nautical affairs, as well as others of my readers, I shall think myself amply rewarded, in having bestowed my time and labour so beneficially.'

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We applaud the fairness, the industry, and the patriotic intentions of Captain Schomberg; and, the expediency of a work like the present being unquestionable, his design claims great merit. The feats of heroism and the professional sacrifices here narrated merit the most precious embalment which literary diligence, critical research, and finished composition, are capable of effecting; and this they deserve not only by their splendour, but by their connection with the power, the prosperity, and the consideration of the British empire. It was, therefore, to be wished that the edifice of the naval chronology should be founded on a search made by a professional and discriminating eye, accustomed to separate fact from fable, and to rectify the inaccurate statements of mere lettered historians, into all the documents which books, public offices, and private repositories could furnish; and that the matter, thus pure, should be thrown into a luminous arrangement, and be set forth in a style that was chaste, elevated, and worthy of such glorious and momentous subjects.

If the work before us be not that monument erected to transmit and to perpetuate our naval pre-eminence, which meets the wish of enlightened patriotism, and the ideas of severe critics, it is not without claims to praise. If the style be somewhat inaccurate, it is free from affectation; if the matter be not in every case sufficiently sifted, it is for the most part authentic, and generally well selected; and if, altogether, the execution of the volumes correspond not with the illustrious deeds which they record, they will be found instructive, entertaining, and useful; creditable to the author, and worthy of the ingenious and liberal spirit of the honourable profession to which he belongs.

To exemplify Captain Schomberg's mode of detailing the *early* part of our naval history, we select his account of it during the interesting period of the reign of Henry VII.

'HENRY VII.

'1489. Bartholomew Columbus first brought into England maps and sea charts, and presented the king with a map of the world.

'1492. Christopher Columbus discovered the American islands. It is generally believed that Cat island, one of the Bahamas, was the first seen and landed upon.

'1497. John Cabot *, a Venetian, who resided at Bristol, encouraged by the success of Columbus, made proposals to the king, to undertake a voyage on discoveries, which was granted by letters patent, provided that the ships fitted out should be obliged to return to the port of Bristol. Cabot sailed in the spring; his object seems

'* Some historians say that Henry VII. granted permission to Cabot and his sons, to make discoveries, on the 5th of March, 1496.'

to

to have been, that of discovering a north-west passage to the East Indies.

'On the 24th of June he discovered land, and gave it the name of Prima Vista, or first seen; it has been since called Newfoundland. Having sailed down to Cape Florida, he returned to England, bringing with him three of the natives of Labrador. Cabot from this may justly claim the merit of being the first discoverer of the continent of America.

'Emanuel king of Portugal, sent out Vasco di Gama with four ships, to attempt a passage to India by the Cape of Good Hope, which after many difficulties he accomplished, and sailing along the eastern coast of Africa, which had been till then unknown to Europeans, he arrived after a tedious voyage of thirteen months in the Bay of Bengal.

'1499. Americus Vespusius, a Florentine, sailed from port Saint Mary's in the province of Andalusia, and made some little discoveries on the coast of Paria in south America. Spain deeming this the first discovery of that continent gave the whole of it the name of America.

'At the close of this century, John II. king of Portugal, declared Lisbon a free port, and adopted a new method of applying astronomy to navigation; he also gave its present name to the Cape of Good Hope, which heretofore had been called the Cape of Storms, foreseeing that it would open a passage to India.

'1500. The coast of Brazil was first discovered by Cabral a Portuguese, who being sent out to the East Indies, by Emanuel king of Portugal, was driven by a storm upon this part of the coast of America.

'1501. On the return of the Portuguese from India, they discovered the islands of Ascension and Saint Helena.

'1502. Vasco di Gama was the first who attempted to cross over directly from the coast of Mozambique to India.

'1504. The first instance of French ships sailing for, and arriving on the coast of North America.

'1508. Negroes were first carried from the coast of Guinea, by the Portuguese, to the Spanish island of Hispaniola.

'Aubart, a Frenchman, was the first who sailed up the river Saint Lawrence to Canada.

'1509. Admiral James Columbus, son of the great Christopher, now settled and planted the island of Jamaica.

'Ships were built in this reign for the royal navy; the Great Harry was the first, and cost upwards of fourteen thousand pounds. She was by some accident burnt at Woolwich, on the 29th of August, 1553.'

As the Dutch have been the people who have most successfully contested for the palm of naval pre-eminence with this country, we copy parts of the author's concise but satisfactory account of the several engagements of the short war which was terminated by the peace of Breda; and we think that they will give the reader an advantageous idea of the present work:

'1665.

'1665. Hostilities having commenced between England and Holland, war was formally declared by the two powers.

'The Duke of York cruized with a powerful fleet on the coast of Holland, until a violent storm compelled him to quit his station, and return to England. The Dutch Admiral Opdam availed himself of this advantage to put to sea, and captured the trade from Hamburgh, with its convoy.

'The duke enraged at the success of the Dutch, on the 1st of June sailed from Solebay, in quest of the enemy; his fleet consisted of one hundred and fourteen sail of men of war, and twenty-eight fire ships, manned with twenty-two thousand seamen and soldiers. This formidable fleet was divided into three squadrons; the first or red, commanded by the Duke of York, with the Admirals Penn and Lawson; the second or white, by Prince Rupert, Minns, and Samson; the third or blue, by the Earl of Sandwich, Cuttins, and Sir George Ayscue *.

'On the same day the enemy were discovered off Harwich, formed into seven squadrons, viz.

	Men of War.	Fire-ships.
1st. Opdam's	14	2
2d. Evertz	14	1
3d. Cortenair	14	1
4th. Stillingaurt	14	1
5th. Van Tromp	16	2
6th. Cor. Evertz	14	1
7th. Scheam	16	2
Total	102	10 with seven yachts.

'The wind being favourable for the Dutch, they retired before the English to the mouth of the Maeze, from whence Opdam assigned his reasons to the States for not fighting the English, with which they were by no means satisfied, and dispatched orders for him to put to sea immediately, and fight at all events. Opdam, at a council of war which he had assembled, finding that the unanimous opinion agreed with his own, said, "I am entirely of your opinion, but here are my orders, to-morrow my head shall be bound with laurel, or with cypress;" and instantly gave directions to approach the English fleet. This memorable battle began at three in the morning, on the 3d of June, off Lowestoffe, and continued with unabating fury until noon, without an advantage on either side, when the Earl of Sandwich †, with the blue squadron, forced through the centre of the Dutch fleet, and threw them into such disorder and confusion as brought on a general flight. The Duke of York, in the Royal Charles of eighty guns ‡, and Admiral Opdam,

'* The same officer who had retired on a pension in the civil war, and was again called forth to serve.'

'† Son to the famous Admiral.'

'‡ She was allowed as a flag ship to have three lieutenants, four masters mates, each to have the pay of a master of a third rate, and thirty midshipmen.'

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in a ship of the same force, were closely engaged for some hours. The Earl of Falmouth, Lord Muskerry, and Mr. Boyle, second son of the Earl of Burlington, were killed standing by the duke, who received a wound in the head by a splinter from Mr. Boyle's head. In the midst of this desperate battle the Dutch admiral blew up; only five of the crew escaped out of five hundred. Soon after this fatal accident four of their best ships, from sixty to forty guns, ran foul of each other and were destroyed by a fireship; three still larger shared the same fate. The Orange, a ship of 74 guns, was also burnt, and her crew perished. At four in the afternoon the Admirals Stillingaurt and Cortinair were killed, and their ships bore out of the line without striking their flags, which drew many after them, and at length threw the whole into confusion. Van Tromp still continued to fight bravely, with not more than thirty ships until eight at night, when he was obliged to give way and leave the English masters of the sea. This was the most signal victory ever gained by the English, and the severest defeat the Dutch ever experienced. They had eighteen ships taken and fourteen sunk, besides such as were burnt. Four thousand men were killed, and two thousand made prisoners, sixteen of whom were captains. On the side of the English the Charity, of 40 guns, was the only ship lost. The killed amounted to two hundred and fifty, among whom were the Vice-Admirals Sampson and Sir John Lawson, the captains the Earl of Marlborough and Portland. The wounded did not exceed three hundred and fifty.

'It was the opinion, that had the English pursued the enemy with vigour, the whole Dutch navy would have been taken or destroyed. On the fleet's return into port, medals were struck in honour of the Duke of York and the victory.'—

'1666. This year the command of the fleet was given to Prince Rupert and the Duke of Albemarle; the former had orders to sail in quest of a French fleet, which consisted of thirty-six ships, under the command of the Duke of Beaufort, and were designed to enter the channel, for the purpose of joining the Dutch fleet, commanded by De Ruyter, who was off Dunkirk with seventy-one sail of the line, twelve frigates, thirteen fireships, and eight yachts.

'On the 1st of June the Duke of Albemarle, who had put to sea with sixty sail, fell in with De Ruyter, and instantly bore down upon him with the utmost bravery. The action soon began, and continued with great violence until night parted the combatants. The ships, in which were De Ruyter and Van Tromp, were so much shattered that they were obliged to shift their flags and had nearly been taken. One ship was blown up, and Admiral Evertzen killed. On the side of the English, Sir William Berkeley, who gallantly led the van in the Swiftsure, a second rate, being attacked on all sides by the enemy, was killed, and his ship compelled to strike. The Essex, a third rate, was also taken. The intrepid conduct of Sir John Harman, who commanded the Henry, deserves to be recorded. The ship being surrounded and assailed from all quarters by the Zealand squadron, Admiral Evertzen, who commanded it, hailed and offered him quarter; to which this brave fellow replied, "No, Sir, it is not

come

come to that yet." The next broadside killed the Dutch Admiral, by which means their squadron was thrown into confusion and obliged to quit the Henry. Three fireships were now sent to burn her, one of them grappled her starboard quarter, but the smoke was too thick to discern where the grappling irons had hooked, until the blaze burst out, when the boatswain resolutely jumped on board, disentangled the irons, and instantly recovered his own ship. Scarcely was this effected before another fireship boarded her on the larboard side; the sails and rigging taking fire, destruction seemed inevitable, and several of the crew threw themselves into the sea; upon which Sir John Harman drew his sword and threatened to kill any who should attempt to quit the ship. The exertions, at length, of the remaining crew extinguished the flames. Sir John Harman, although his leg was broken, continued on deck giving directions, and sunk another fireship which was bearing down upon him. In this crippled state he got into Harwich, and repaired the damages his ship had sustained in sufficient time to be at sea and share in the following actions.

'On the 2d, in the morning *, the battle was renewed with encreased fury. Van Tromp rashly pushing in amidst the English ships had a narrow escape. De Ruyter, who came down to his assistance, was in equal danger; these Admirals being reinforced by sixteen Dutch ships gave an instant turn to the battle; and the Duke of Albemarle became so hard pressed, that he found it necessary to retreat towards the English coast. The Dutch continued to pursue him until night, when a calm put an end to the conflict. In the morning the Duke of Albemarle finding that he had only with him twenty-eight ships fit for service, and the Dutch still in pursuit with a much superior force, ordered three of the ships most disabled to be burnt, and directed those which had not suffered so much to go ahead to look out, preserving the line himself with the rest to receive the pursuers.

'In the afternoon, when the Dutch fleet was almost within gunshot, a fleet was discovered to the southward, which the duke soon perceived to be the squadron under Prince Rupert crouding sail to join him.

'The English admiral instantly hauled to the wind, the more readily to effect the junction. Sir George Ayscue, in the Royal

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' * Previous to the action, a council of war was held, wherein the Duke of Albemarle gave this opinion: "That if we had dreaded the numbers of our enemies, we should have fled yesterday; but though we are inferior to them in ships, we are in all things else superior. Force gives them courage. Let us, if we need it, borrow resolution from the thoughts of what we have formerly performed. Let the enemy feel, that though our fleet be divided, our spirit is entire. At the worst it will be more honourable to die bravely here on our own element, than to be made spectacles to the Dutch. To be overcome is the fortune of war, but to fly is the fashion of cowards. Let us teach the world, that Englishmen would rather be acquainted with death than with fear."

Prince,

Prince, of one hundred guns, standing too near the shoals, ran upon the Galloper, where she was surrounded by the Dutch fleet and taken *.

'On the 4th, about eight in the morning, the English squadron having joined, pursued and came up with the Dutch fleet. The attack was now made and supported with greater violence and resolution than before. The action continued until seven in the evening, when a thick fog put an end to this dreadful and bloody contest, each retiring to its own coast claiming the honour of the victory.

'The loss sustained by the English in this long and well-fought battle is computed at sixteen men of war, ten of which were sunk, and six taken. Between five and six thousand men were killed and wounded. The English writers mention the Dutch to have lost fifteen men of war, twenty-one captains, and five thousand men; their own authors confess nine ships to have been lost, and a prodigious slaughter.

'The pensioner, De Witte, said after this battle, "If the English are beaten, their defeat did them more honour than all their former victories; their own fleet could never have been brought on after the first days fight, and he believed none but theirs could; and all the Dutch had discovered was, that Englishmen might be killed and English ships burnt, but that English courage was invincible."

The author gives the following account of the unfortunate expedition to Quiberon:

'1795. Sir John Borlase Warren received orders to hoist his broad pendant as Commodore, and appointed to command an expedition destined against the coast of France. About the middle of June he sailed from Yarmouth Roads, Isle of Wight, with a squadron of ships of war and fifty transports, having on board a body of 3000 emigrants, under the command of the Comtes D'Hervilly and De Puysaye. On the 21st the Galatea, which had been sent into Quiberon Bay, was chased by the French fleet, which was soon afterwards seen by the squadron. Commodore Warren immediately made the best disposition for the protection of the convoy, and hastened to join Lord Bridport, whom he had the good fortune to discern the next morning in pursuit of the enemy; the Robust, Thunderer, and Standard were ordered to join the fleet, but got up with it too late to have any share in the action. After being at sea sixteen days, Sir John Warren anchored with the fleet between Isle Dieu and that of Noirmoutier; but as this was not considered by the French officers a proper situation to disembark, they proceeded for

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'* The capture of an English admiral caused great exultation among the Dutch; this has been assigned by some sea officers as a reason why the English do not wear the red flag at the main; but Sir George Ayscue was Admiral of the white. The distinguishing flag of the red squadron has ever been the union or flag of the lord high admiral. Sir George Ayscue on his return to England was set aside.'

Quiberon Bay, where they anchored on the 25th. On the 27th most of the emigrant troops were landed near the village of Carnac. At first about 200 Republicans shewed a disposition to oppose the disembarkation, but these were put to flight with some loss. The whole coast was soon alarmed; and the Republicans collecting in great force, (after several successful attacks,) compelled the Royalists to retreat into Fort Penthievre, and the Peninsula of Quiberon, which had surrendered to M. D'Hervilly on the 3d of July. The whole force which occupied the peninsula amounted to about 12,000 men.

'On the night of the 16th, M. D'Hervilly, at the head of about 5000 Royalists, made an attempt to carry by storm the Republicans' works and entrenched camp on the heights of St. Barbe, in which he was repulsed with considerable loss, and himself severely wounded.

'Desertion from the emigrant army became at this time seriously alarming; indeed little else could have been expected, when it is considered that numbers of the men were enlisted from the French prisons. By these deserters General Hoche was informed with the exact state of the fort and royal army. On the night of the 20th, which was extremely dark and tempestuous, many of the emigrant soldiers who were on guard deserted; and being acquainted with the parole and countersign, conducted a large body of the Republican troops unmolested into the fort. The instant the alarm was given, the garrison was thrown into the greatest scene of confusion; several of the emigrant soldiers grounded their arms, and shouted *Vive la Republique*; others abandoned or massacred their officers; the few who remained faithful fought with great desperation, and did not surrender till after a bloody and dreadful conflict.

'The Emigrants, Chouans, and English in the fort were about 10,000; most of whom were either killed or taken prisoners; among the number were the young Comte de Sombreuil, the Bishop of Dol, and several other emigrants of distinction, who were, contrary to the terms of capitulation agreed on by General Le Moine, conducted by his orders to Nantz, where they were tried by a military tribunal, and sentenced to suffer death.'

Then follows the letter of the gallant but ill fated Comte de Sombreuil to Sir J. Warren, which many of our readers will doubtless remember; after which Captain S. proceeds:

'The morning after this dreadful affair, the boats of the squadron with great difficulty brought off about 2000 or 3000 troops and Royalists, inhabitants, under cover of the frigates.

'Whilst Sir John Warren was carrying on his operations against the enemy in Quiberon, he detached Captain Joseph Ellison, in the Standard, to the great road of Belleisle, to summon the governor to surrender up the island.'—

'Sir John Warren next proceeded to the islands of Hedic and Houat, of which he took possession without opposition. Having refreshed the troops, and left a sufficient number for their defence, with some ships of war to cover the retreat of the troops if necessary, he sailed to the attack of the island of Noirmoutier; but he here also

found the Republicans so well prepared, that he was obliged to retire, after destroying two or three armed vessels, and then took possession of Isle Dieu, about five leagues to the southward of Noirmoutier.

'Soon after the Commodore's arrival at this place, he was joined by the Jason frigate, Captain Stirling, having on board the Comte D'Artois, Duc de Bourbon, and some other French noblemen. A fleet of transports also joined the squadron, with 4000 British troops on board, under the command of Major General Doyle, who were landed on the island with a great quantity of military stores, cloathing, &c. They remained here till the close of the year, when finding it utterly impracticable to attempt any further descent on the coast of France, they were re-embarked on board the transports and returned to England.

'Thus ended this unfortunate expedition, by which the nation is supposed to have lost near 40,000 stand of arms, with clothing for as many men; besides an immense quantity of stores, ammunition, &c. Six transports that arrived in the evening previous to the storming of Fort Penthievre, laden with provisions of every sort for the army, fell into the hands of the enemy.'

In the more recent part of the history, we find only those details which the dispatches of the times contained: but the author has the merit of fully and faithfully setting forth their contents.

Vols. IV. and V. are wholly occupied, as *Appendices*, with lists of squadrons and their commanders, accounts of ships lost, taken, &c. &c. These documents are useful though not *readable* parts of the work; and we doubt not that they are authentic in all important points, though we have observed a number of minute errors.

Jo.

ART. III. *The Naval History of the late War*; compiled from authentic Documents. By William Stewart Rose. Vol. I. 8vo. pp. 320. 7s. Boards. Cadell and Davies. 1802.

THE *cui bono* of this work is not very evident to our apprehension: since the events which it records are in the recollection of every one, and it cannot boast of imparting any information beyond that which the journals of the period communicated. In his introduction, Mr. Rose says; 'if, in the work I have undertaken, I shall succeed in freeing the accounts of our naval operations from the inventions of the Jacobins, or the errors and exaggerations of the credulous, I shall conceive my efforts successfully directed, and my object attained.'—Respecting the transcendency of our naval exploits, and the superior merit of our brave defenders, there has been but one opinion, and to have doubted here would have been to fly in

the face of reason, and abjure the testimony of sense; so far, then, the labours of the author are superfluous. If we are to consider him as stigmatizing with the title of Jacobins all those who view with no fondness the affairs of Toulon, Corsica, and Quiberon, the bullying conduct in the neutral ports of the Mediterranean, and the French colonial captures, we suspect that he will give an alarming bulk and respectability to the sect; and if we admire his boldness in undertaking to settle points of such difficulty, we have to lament that success has so little sanctioned his attempts.

We subscribe, however, *ex animo,* to the following candid and sensible observations on the inefficient naval campaign of 1783, and the unjust censures on Admiral Earl Howe:

'Thus passed the Channel campaign of 1793. The people, who too often confound want of success with want of merit, were loud in their censures of the Admiral. The public prints and pamphlets of the day were filled with declamations on his inactivity, his name was seldom mentioned but with reproach, and the road of Torbay, to which he had so frequently returned baffled in his endeavour to meet the enemy, became the watch-word of calumny. If, in judging of land operations, it is right to make allowances for various accidents, which may frustrate the best planned enterprizes, much more ought we to do so with respect to naval expeditions, where difficulty of procuring intelligence, changes of wind, storms, calms and mists, render all attempts on an enemy extremely uncertain, often impede pursuit, or rob even victory of it's rewards. The opposition of the elements was in this instance the sole cause of the Admiral's failure, in attempting to bring the enemy to action; and the experience of his former life ought to have secured him from the suspicion of declining the contest. His courage was proverbial, and his talents as a commander had been proved in various situations; but in none more incontestibly than the relief of Gibraltar during the last war, when with a very inferior force he safely conducted an enormous fleet of transports through a narrow strait defended by a powerful French and Spanish fleet. The events of the ensuing year proved the injustice of the obloquy, under which he laboured, and ought to be a warning, not to decide rashly on subjects, on which but partial information can be obtained, nor, because, we are removed from the sphere of them ourselves, to undervalue obstacles, which perhaps no human skill, or courage can overcome.'

Treating of the Toulon business, the author says;

'Some, who conceive the war began on the strictest grounds of self defence, have considered Lord Hood's availing himself of the disaffection of the constitutional party in France, as an unjustifiable interference with the internal government of that country, and a departure from the principles, on which our ministry professed to carry on the war: yet in this instance they differ from the opinions of a writer [Vattel] on the laws of nations, who has shewn himself

most jealous of any attempt on the liberties of an independent people.'

Permitting this objection to give way to the authority of Vattel, there is another founded on a fact which it is not so easy to remove, which Mr. Rose has not stated, and in course has not combated. He does not wholly conceal, though he is averse from explicitly stating, that it was the constitutionalist faction which gave Lord Hood admission into Toulon; and that it was stipulated that Toulon was to be governed conformably to that regîme. A very public measure, in direct violation of this agreement, was taken by the British Admiral, which is passed over in the present author's page; we refer to the re-instatement of the Archbishop of Toulon in his see, with all the rights and privileges which he enjoyed under the antient system. We know not whether this step contributed, or not, to the disastrous consequences which soon afterward followed: but it was an act by which the treaty was violated, and it ought to have undergone public investigation. We do not make the gallant and noble Commander responsible for this conduct: which much less resembles his character, than it savours of the eagerness and inconsiderateness then displayed in our foreign department.

On another point, it is remarked:

'It has already been cursorily stated, that the great deficiency of grain in France during this year, and the difficulty, she found in obtaining a foreign supply, from having dissolved her relations of amity and commerce with the greatest part of Europe, led our government to hope, that she might be starved into terms of peace, by cutting off all supplies of food. The advantages resulting from this measure were not equal to the expectations, which had been formed. Some of the northern powers were dissatisfied with the proceeding; and it has been considered by some persons as an undue and unusual exercise of hostility.'

Mr. Rose then proceeds to argue on the admissibility of this system, and again quotes Vattel in his support: but his reasonings on this subject are not less wide of the true point, than the trade winds are distant from the north pole. Whether provisions are or are not contraband, in certain circumstances, is not the question; the matter to be ascertained is whether a Being, endowed with the least particle of rationality, could ever entertain the hope that the detention of a few thousand quarters of corn would reduce a proud high-spirited population, of upwards of twenty millions, to a capitulation? Had the pure production of misery been the sole object contemplated, the measure was a fit one for such a purpose: but, without presuming to set up an opinion in opposition to the grave authority

of

of civilians in and out of judicial situations, of commissioners presiding in courts of public law, of statesmen connected with the foreign department, of renowned publicists, and of lecturers on the laws of nations, we shall only observe that, had the decision been different, and had the breath of a great law sage (now no more) clogged the wheels and arrested the operations of the mint of forged assignats, instead of giving vigour to its movements and vivacity to its impressions, we should have thought that sound policy and the honour of Britain had been at least as much consulted. That we view with no predilection all chimerical innovations in the collections of rules and maxims which pass under the name of the Law of Nations, our sentiments on the questions in discussion between us and the northern nations have sufficiently proved. It is also to be remarked that a great and respectable nation, ambitious of setting an example of all that is magnanimous and liberal, should not be eager to push the rights of war to their utmost limit; and a more judicious guardian of its interests, than it had then the fortune of obeying, may hereafter be of this opinion.

On the French colonial captures, we must observe that they cost us immense sums and innumerable lives, and gave great jealousy to our allies. Good judges have thought that, had we reserved those efforts for a co-operation with the other confederates, in attempting to keep within bounds the torrent which inundated Europe, we should have better consulted our reputation, and not less our interests in a large view of them. We except the Dutch colonies; of which, perhaps, it was proper to lay hold: but, acting up to the conservative spirit, which was professed to be the principle of the late warfare, even these should have been taken into our possession and holden as pledges faithfully to be restored, if ever Holland recovered her independence. Candour, however, requires that it should be admitted that the period, of which we speak, was a very extraordinary one; and ~~that~~ the men who acted in it should be judged with some allowance. No persons are more desirous than we are, that the measures which have been so warmly debated may rest in undisturbed oblivion; and that our country, resuming her wonted temper and spirit, may be distinguished by such characteristics to the most distant times.

Mr. Rose has the art of stating events, which are not to his taste, in a manner unusually concise. The expedition to Quiberon, fitted out at an immense expence, from which so much was expected, which ended so tragically, which gave to republican ferocity victims so illustrious and venerable, and

which was so much the object of public discussion, occupies exactly one half of one of his light pages. This mode may please his friends, but what becomes of the good faith of the historian? Nay, where is the boasted spirit of chivalry, when silence thus conveys the greatest insult on the memory of such noble sufferers?

If Mr. R. should despise *our* remonstrances, we shall consign him to a literary censor of antiquity, who was also a fine Gentleman; and who, calling history *testis temporum, vita memoriæ, nuntia vetustatis,* asks, *Nam quis nescit, primam esse historiæ legem, ne quid falsi dicere audeat? deinde, ne quid veri non audeat?* He farther observes; *in rebus magnis, memoriâque dignis,* consilia *primum, deinde* acta, *postea* eventus *expectantur;* and he afterward adds, *cum de eventu dicatur, ut causæ explicentur omnes vel casus, vel* sapientiæ, *vel* temeritatis: *hominumque ipsorum non solum res gestæ, sed etiam qui famâ ac nomine excellant, de cujusque vitâ, atque naturâ.*—Did the heroic devotion of the high-spirited and brave Sombreuil, did the martyrdom of the Bishop of Dol, demand no tribute from the historian of the enterprizes of the time *?

Speaking of Ceylon, Mr. R. says:

'This island teems with most of the productions of the east, though little exertions have been made by the Dutch to bring them to perfection. The whole of the sea coast, which was in their possession, has since fallen into our hands; a great extent of country however is in the possession of a barbarous Prince, who still enjoys considerable wealth and resources. His power indeed bears no proportion to his pride; but the Dutch conceived their submission to his insolence well repaid by the essential advantages, they derived from him and his subjects.

'He is familiarly called the King of Candia; but he stiles himself The Descendant of the Sun, the Offspring of the Lion, and the Ruler of the slaves, whom others term the Sovereigns of the world; and when petitioning his European neighbours for the restoration of provinces, of which they had despoiled him, addressed his remonstrances to his 'Slaves the Dutch.'

'During the time, these settlements were in the hands of Holland, they produced little revenue: which is entirely to be attributed to the indolence of the cultivators, and their pernicious system of monopoly. The Portuguese, while they retained these parts of the island, did nothing towards improving their productions; and during the immense length of time, they were in the possession of Holland, almost every branch of agriculture, except the collection of cinnamon, was neglected, and this was only cultivated during the last fifteen years. Their colony depended entirely on supplies of foreign grain for its subsistence; and though rice is cultivated with

* We refer our readers to Captain Schomberg's detail of this disastrous expedition, quoted in our preceding pages. (pp. 350-352.)

success

success in some, and might be in most districts of the island, no encouragement was given to its growth, because the exclusive privilege of supplying the settlements was monopolized by the governor and counsellors of Batavia.

'The military advantages derived from the possession of this colony render it a most desirable possession to Great Britain. There is no port on the Coromandel coast, in which ships can remain with safety during the storms, which render the shores of India nearly inaccessible from the month of October to January. The possession of the harbour of Trincomalé is therefore of the most essential consequence to any power, whose interests require the command of the Indian seas; and the last war forcibly proved the evils to be expected from its remaining open to our enemies. The island is in fact a post commanding some of our most valuable and least protected provinces in Asia. The enormous surf, which breaks on the coast of Coromandel, defends every part of the shore, except that opposite to Ceylon; but here this tremendous barrier does not exist, and the possessors of the island might safely throw a numerous army into the heart of the provinces of Tinnavelly, Ramnad, Madura, and Tanjore, or at least force the English to keep up an army on the opposite coasts at a ruinous expence. On the other hand, the defence of the island itself cannot be attended with much difficulty; since troops can at any time be safely transported from the Coromandel coast: as boats can always pass to leeward of the reef of rocks, which connects the island with the continent, which ever way the monsoon sets.

'Had Ceylon remained a Dutch colony, it is impossible not to believe, that the French would have converted it into a depôt for the attack of the Carnatic; nothing indeed can afford a stronger temptation to an enemy, who is in the possession of Trincomalé, than the state of our southern possessions in India, even now that our most formidable enemy Tippoo Saib no longer exists. These districts are filled with a turbulent race of chiefs, who continually resist the demands of the English government in India, and on every favourable occasion retain their own quota of revenue, and plunder the peaceably disposed countries in their vicinity. Under such circumstances, should an enemy have invaded the coast, and a naval armament prevented succours arriving from Bengal, the Carnatic must infallibly have fallen.'

Captain Percival's recent account of Ceylon will shortly call our attention more fully to this subject.

The following extract shews the temerity and the wealth of English merchants;

'In April 1796, a small naval force, under the command of Captain Parr, and a military detachment, commanded by Major-General Whyte, got possession, without resistance, of Demerara, Berbice, and Essequibo, Dutch colonies, situated in Guiana, to the westward of Surinam. A considerable quantity of produce fell into the hands of the captors. The fertility of these districts is too universally known to require description. They have, from the moment in

which they fell into our possession, been a favourite field for English speculation, and have realized the wildest dreams of avarice.

'But the degree in which the value of these colonies and Surinam, which afterwards fell into our possession, has been enhanced by British industry, will be best exemplified by the statement, which was delivered in to the English government by the merchants and cultivators, after the signature of the preliminary articles of peace. According to their estimate, the value of the estates purchased in these settlements, and held by British subjects, amounted to the enormous sum of seven million pounds, and the moveable property, such as slaves, European cargoes, plantation utensils, and North American supplies of flour, lumber, &c. to two millions more.'

It may be said that, to string together the ordinary accounts of transactions so intimately connected with the fate and glory of the country as are those contained in this work, is a patriotic service; and that every effort in this way should be received favourably, and countenanced. We are as much alive to sentiments of this sort as the framers of such an observation can be; and had the present narrative aimed only at this laudable end, we should have lent every support to its humble claims:—as far as it does attain that object, so far we consider it as valuable.

Mr. Rose pleads his inexperience in the business of the press, as an excuse for typographical inaccuracies: but the composition of his work is defective also in point of style. It is particularly marked by an ungrammatical omission of the relative *which*, in frequent instances, and the substitution of a disjunctive comma for this connecting particle;—for example: 'pursued the course, she was steering;' 'the calamities, we experienced;' &c.

Jo.

Art. IV. *Sketches and Observations taken on a Tour through a Part of the South of Europe.* By Jens Wolff. 4to. pp. 260. 18s. Boards. Richardsons.

In the spring of the year 1785, the author of these sketches, in company with Mr. Noring, Secretary to the Swedish Minister at the Court of London, took his departure from Falmouth, in the packet for Lisbon. From the capital of Portugal, the travellers prosecuted their excursion by Elvas, Badajoz, Merida, Madrid, Alcala, Saragossa, Barcelona, Perpignan, Montpellier, Nismes, Aix, Marseilles, Toulon, Nice, Genoa, Leghorn, Florence, Sienna, Viterbo, Rome, Naples, Bologna, Modena, Parma, Turin, Chamberry, Lyons, and Paris.

A stale date and a beaten itinerary necessarily deprive Mr. W.'s pages of that popular interest which attaches to the recital of recent events, and to the delineation of countries which

which have attracted, for the first time, the steps of the curious. A diligent and sagacious observer, however, may often have it in his power to correct, enlarge, or modify the statements of others; to glean important yet neglected facts; to enliven by his manner, or enhance by his reasonings, those truths which dulness had obscured, or flippancy degraded; and, from the perplexity of partial and discordant materials, to unfold a copious and consistent narrative. Yet let us not be so unreasonable as to require of any tourist more than he promises. The present unassuming author observes:

'It is for those whose literary talents, and opportunity of visiting foreign countries, qualify them for the undertaking, to draw finished pictures of life and manners, as exhibited in the various nations through which they pass; and in preparing the narrative of their travels for the public eye, to set off weight of matter with purity and elegance of style. Happy they who, thus gifted to instruct and amuse, shall become intitled to rank in the same class with a Wraxall, a Coxe, or a Moore! To the qualifications of these accomplished tourists, the author of the following pages intending them as a mere *sketch* or *outline* of men and things, has not the vanity to aspire. Far from aiming at the higher ornaments of composition, he purposes only to relate the occurrences of an agreeable excursion in easy and familiar language; fortunate, indeed if by an occasional stroke of pleasantry he may rather dispose his reader to accompany him through the work with the cheerfulness of a companion, than to fasten upon its defects with the severity of a critic.'

Mr. Wolff's humility, however, must not rob him of his due measure of praise.—His style is certainly that of a gentleman and a scholar. Rigid justice would, perhaps, require that we should notice this merit as constituting the *chief* excellence of his performance. We feel ourselves rather smoothly carried along by the polished tenor of the relation, than charmed by novelty or roused by emotion; and if, in some instances, our uniform course be interrupted, we are too conscious of being jostled out of our direct road, which we gladly resume, in spite of its placid monotony. Some of the intruding passages consist of long quotations, which mar the unity of design, without imparting rare or new information. We have not overlooked the writer's apology: but we deem it inadmissible. In a mere *sketch* or *outline*, sometimes faint enough, nay almost evanescent, why retail the fates of such personages as *Inez de Castro*, or *Massaniello?* Why fight over again, in English, the battle of *Thrasymenus?* Why stop at Arezzo, to commemorate the charms of Laura and of Vaucluse? Why drag us from Modena to Trieste, to witness the last moments of the unfortunate Winkelman? Or, why dwell

on an event of such notoriety as the resignation of Christina of Sweden?—Mr. W. has, indeed, contrived to introduce each episode by some connecting sentence: but he might, by virtue of the same expedient, have added to his journal every event that is splendid or interesting in history. Few devices are less costly than the insertion of an associating clause; and delicacy of transition seems reserved for the squeamish.—In the *good old times*, there lived in the north a worthy parson, whose pulpit *hobby* was the *broken covenant*. On the morning of a communion Sunday, he chose for his text,—"*and the cup was found in Benjamin's sack.*" A ray of hope beamed on the countenances of the simple and wearied audience, but it was quickly dispelled by the following short, *easy*, and *apposite* exordium:—"Dearly beloved brethren, this is a day set apart for searching your sacks: but in whose sack, think ye, will be found the cup of the *broken covenant?*—And this query *naturally* leads me to discourse of this *broken covenant.*"

If Mr. W., however, has dealt from his own stores with a sparing hand, it is seldom that we can detract from the justness of his observations or the fidelity of his reports. We say *seldom:* for we must acknowlege that a few of his assertions betray haste or credulity. Narbonne, for example, is said (p. 71.) to be *two miles* from the sea; whereas the distance is two French leagues, or nearly six English miles; and the precise measure is more deserving of attention, because there, as at Frejus, the sea has retired from a once flourishing port.—Again; 'there are still discernible many vestiges of Roman edifices.' We would not advise connoisseurs, on the strength of this intimation, to make a pilgrimage to Narbonne: since few towns of antient Gaul are so completely destitute of any striking memorial of former greatness. The rare and scattered fragments of the capital, circus, and amphitheatre, have long been appropriated to the construction of fortifications, which have been allowed to decay since France obtained possession of Roussillon.

The author thus gives his general remarks respecting Spain and its inhabitants:

'Before I enter upon a description of Madrid, I shall briefly pass my remarks on the Spanish character and customs in general. The women are remarkable for the delicacy of their form, and the peculiar softness and brilliancy of their eyes; it is not the influence of these charms, however, that renders them so irresistible to men, and makes the Spaniard proud to say, "In Spain, we do not kill ourselves but die for love." It is the intonation of their voice, which is so fascinating and dulcet, that I once heard it remarked, "there was more melody in the voice of a Spanish woman, than in the song of an Italian."

'From

'From the casual intercourse a traveller has with the natives of a country, it is, perhaps, unfair to form an opinion of the national character. That of the Spaniard has generally been esteemed vindictive and revengeful; were I, *préjugé a part*, to mention the traits that struck me most forcibly, as worthy to be called the *national character*, they would be honour and probity.

'Every publication at Madrid, that borders on irreligion, indecency, or that is licentiously gay, is forthwith burnt—this, doubtless, makes condemned books become more scarce, and consequently much sought after.

'Coffee-houses are numerous. The Spaniards are passionately fond of coffee and chocolate, which they prepare better than in any other country. The latter is indeed excellent, and known all over the world; the poorest peasant in Spain would be but ill-satisfied without his dish of rich chocolate. How much more wholesome than our English beverage of tea! Table d'Hôtes are not known—*Tant pis!* At a table d'Hôte, a stranger becomes acquainted with the national character and manners of the people, restraint ceases, and formality is banished. The French and Germans consider their table d'Hôtes as half the pleasure of their lives.

'The Spanish horses are much esteemed, and have these distinguishing qualities: colour, in general black or chesnut; an ardent or fiery eye; high courage tempered by gentleness. The Andalusian horses are preferred for the cavalry, state, or the manége. The town of Cordova produces many excellent horses, of these the King has a set. The barb race is peculiar to this province, and is preserved by a society of gentlemen, called Maestranza. The use of chimnies is almost unknown in Madrid—braziers are preferred, on which a kind of frankincense is occasionally strewed, which gives an excellent odour. Some time since, a very pretty actress complained to the Duke of Alba, that she was very poor, lived in a cold apartment, and was frozen to death. The Duke sent her a brazier full of piastres!—These traits of gallantry or humanity are not uncommon in Spain—how, in fact, could one refuse a brazier, or any thing else, to a pretty actress, who had no money, and was cold?—I had this anecdote from the Marquis de Langle.

'Friday is an ominous day in Spain; a vessel will hardly quit a port, or a captain put to sea on that day—all accidents happen on, or are attributed to a luckless Friday; and yet this day has been remarkably fortunate to others. Henry the Fourth, it is said, preferred Friday to any other day in the week. It was on that day he, for the first time, saw the beautiful Marchioness of Verneuil, of all his mistresses the one he preferred next to Gabrielle d'Estréés, whom he never could forget, of whom he talked an hundred times a day (as related by St. Evremond), whose portrait was always in his hand, and it is said, at his lips, when he fell under the poignard of the assassin Ravaillac.

'Compliments are more remarkable here, than elsewhere. A Spaniard always says to you, "*Dios guarde a Usted*," God protect you; or, "*Beso las manos*," I kiss your hands; or, *Viva Usted muchos annos*," "*Mil annos*," may you live a thousand years. It is related

related of a Spaniard, who inherited property bequeathed him by his uncle, that on his hearing the will read, he exclaimed, his eyes streaming with tears at each sentence, "*Mio Tio, viva Usted mil annos,*" my uncle, may you live a thousand years!—His dear uncle had been buried the preceding evening!

'Although I had various letters of introduction in this capital, some of which were of essential service to me, I cannot avoid mentioning the reception I met with at the house of a banker: on being shewn into an apartment, where I waited a few minutes before I could deliver my credentials, my attention was attracted by a sentence written in characters of gold on the wall, intimating "that nothing could be more ennuyant to men of business, than the visits of those who had little to do." This hint was too palpable to be mistaken, I threw my letter and card on the table, and retired, as Don Pedro was entering the room.

'There are, perhaps, few places where titles confer so little honor as in Spain; the frequency of them lessens their importance, and in addressing a stranger, you can seldom err by entitling him Marquis, Count, or Cavallero. The greatest distinction of ancient nobility lies in the number of christian-names prefixed to that of the family or surname: these are sometimes multiplied even by persons of inferior birth; I met with one of this description, whose name was simply Velasquez; his father having realized some money, as an honest silk-weaver, in Murcia, which, at his death, he bequeathed to Velasquez, the latter took the title of Don, and signed himself Antonio Fernando Philipe Henriquez Barameda Gomes de Velasquez, Cavallero of the Order d'Alcantara.

'If we observe the manner in which a Spaniard gives us his attention, which is commonly with his mouth open, we shall be disposed to admit the assertion of a Danish physician, who maintained, that people inclined to be deaf, receive sound from the vibration round the teeth; yet the size of their ears, which is uncommon, seems sufficient to answer the purpose for which nature intended them; I have seen those that would not go into my glove!'

We are not inclined to attach much importance to the question respecting the birth-place of Galileo: but, as the best authorities are in favour of Pisa, we were rather surprized to find a cautious writer ranking that celebrated philosopher, without hesitation, (p. 97.) among the natives of Florence.—In like manner, if the bite of the tarantula *must* be cured by music, we will not object to such a cheerful prescription: but we would rescue from the scandal of a suspicious age la Signora *Tofana's water*, which we verily believe was just as innocent as that of any other Signora. Yet it is here represented (p. 130.) as the most deliberately wicked fluid on the face of the earth;—as 'destroying the person to whom it is given at any stated period;' 'the effect may be either instantaneous or protracted for months, or even years, and the sufferer will linger till the period arrives at which it is intended the deadly

potion

potion should undermine and destroy the constitution of its victim.'—But, mercy on us! the dreadful *Bohun-Upas* again rears its awful form.—Gentle reader, let us not linger within the atmosphere of this highly deleterious paragraph: but let us fly, ere *tremor* and *subsultus tendinum* convulse our frame, to gayer pictures and scenes of ordinary life! Gladly would we request Mr. W. to escort you through the streets of Naples and Marseilles: but, peradventure, you have long since been tired with the bustle of these fair cities. Well, then, listen to a few incidents or adventures—to any thing, in short, that may recover you from alarm:

'Wandering a few miles from Montpellier, upon a ramble of this description, and following the track of a road, winding along the feet of mountains through a pastoral valley, where shepherds were driving their flocks to feed upon the distant hills, I strayed farther on this romantic spot than I originally intended, and did not discover my situation 'till the setting sun announced the approach of evening. Ignorant of the distance from the town, I alighted, tied my horse to a tree, and sought some cottage or hamlet, where information could be gained. No track or road, however, appeared to guide me, 'till at a distance a bridge was visible, that seemed to unite two crags of rocks, between which a current glided with considerable rapidity, until it fell down a steep, which formed a cataract throwing up its white spray into the air, and from the still reflected beams of the sun, displayed a thousand variegated colours. On the side of this steep stood a small but neat cottage, overshadowed with pines; two children were playing on the ground near the door, and had not observed me 'till I stood close to them; on asking to whom the cottage belonged, they seemed astonished, stared, and then with precipitancy ran into the house, calling on "*Maman! Maman!*" Following them, I perceived an elegant female seated at a table, in the attitude of reading; apologizing for my abrupt entrance, I informed her of my situation, and trusted to her goodness to instruct me by what means I should be likely to regain the path I had quitted. With the utmost sweetness of countenance, and a politeness that evinced a knowledge of the world, she hesitated not to give me the necessary information; and on learning I was travelling through Montpellier, on my road to Italy, and had been tempted by the beauty of the surrounding country to lose myself in this sequestered spot, she requested me to take some refreshment, of which, from fatigue, I, in truth, stood much in need, and therefore very readily accepted. I was rising to depart, when her husband entered from his evening walk; his surprize and perplexity were not small, on seeing me - The lady, to whose hospitality I had been so much indebted, explained the circumstances of my visit, and confidence being somewhat inspired, I was tempted to prolong my stay by the courtsey of the little blooming Jeannette, who had quitted her mother's side, to prattle on my knee. I felt some curiosity to have explained the mystery of finding persons so superior in their manners,

and elegant in their persons, occupying this retired spot, which apparently afforded scarcely the necessaries of life; this was not, however, a moment for enquiry,—but my impatience to learn some particulars of my host was gratified beyond my expectation, by his ingenuous declaration of some circumstances relative to his situation. I thereby understood that he was a Neapolitan nobleman, who, in consequence of having fatally wounded a brother officer in a duel, some months back, had been under the necessity of leaving Italy, and had in retirement sought that security, which in his own country was denied him. The evening being far advanced, I was anxious to depart, and intimating my desire, he very kindly accompanied me, till, by a nearer way, we reached that part of the road which had misled me, and here we parted. Whether it was the courtesy, intelligence, and candor of the husband, the unaffected loveliness of the wife, or the magic of this peculiarly romantic situation, that interested me, I know not; but certain it is, I felt, at parting, a regret, which, from the shortness of our acquaintance, I hardly dared to confess to myself.'

'Strolling into the coffee-room of *les quatre nations* at Marseilles one day at the hour of dinner, I could not avoid remarking the manners of different people, and the effect of various languages on the ear of a stranger. Several persons were assembled, either at dinner, reading the newspapers, taking ices, or ordering whatever suited their palate. A little full-dressed, hungry, meagre Frenchman, *bossu avec des jambes longues et un nez crochù*, with his napkin tucked under his chin, and devouring a sallad with impatient gestures, was, at every mouthful, vociferating, "*Garçon! Garçon!*"—The latter arriving out of breath, with big drops of symptomatic heat emitting from his brows: "*Quoi diable, garçon, est ce donc comme ça qu'on fait des attentions ici? Il y a plus d'un quart d'heure que j'ai appellé, et personne ne vient! appellez vous çela etre bien servie? Qu'avez vous donc pour diner? Donnez moi la carte sur le champ*"—"*Eh bien, Monsieur, la voila*"—"*Ah! voyons un peu!*—Taking a magnifying eye glass out of his pocket, which, by the reflection of the candles, seemed to set the bill of fare on fire.

'Bouille à la sauce.
De ros-bif à l'Anglois.
Cabillau à la sauce blanche.
Demi canard roti, ou aux navets.
Quarrè de mouton en chevreuil, ou à la reine.
Poitrine de mouton pannéé grilléé.
Fricandeau à l'ozeille, ou à la Dauphine.
Des Epinards au jus.
Omelette aux pommes.
Poudin au ris.
Oeufs au miroir.
Maccaroni, &c. &c.

'A blustering German Baron, six feet high, surrounded by dishes, none of which seemed to please or satisfy him, was muttering to himself, "*Was Teufel! donner wetter! hat er mir gegeben? dis kan ich bey*

hey meiner seele nicht essen – What the devil, thunder and lightning, has he given me? By my soul this is not eatable."—"*Carçon! fien ici tonc*"—"*Eh bien, me voila, Monsieur, que vous plait il?*"—"*Ke tiable kes que ça qu'on m'apport? Me prend on per en pete savage ke je pis manger ceci ou cela in-çi, ke tous vos otres tiables te plats, he?*" "*Mais, Monsieur*, (said the waiter, with an humble and submissive tone of voice) *je vous assure que tout est bon dans notre maison, et*"—"*Et quoi tonc, Monsieur Hans Wurst! foila des raisonnements toujours, tes tomestiques quant on temande kek chose, c'est les Carçons de nous faires tes tisputes, tes kerelles!—donner blicksum allez foo au tiable, et dit à ton maitre qu'il fient ici.—Tiable! der verfluchter kerl meint dass man hier mit alles zufrieden seyn muss.*—The cursed rascal conceives that one must here be satisfied with every thing."—At this moment, an English naval officer entered the room, who, going to a table, was recognized by an old acquaintance, his countryman. "Ah, George, my worthy, who the D—l would have thought of seeing you in France? How are you?"—"Why, Bedford, G—d dam'me, where do you come from? (replied the other), I thought you were safely lodged in Old England among the loungers in Bond-street, by G—d!" —"No, I'm on my travels with my tutor." Are you? well I'm d—d glad to see you, by G—d! Let's sit down and crack a bottle of Burgundy together. Here, you waiter, garçon, scaramouch, what's your name, lay the cloth, and bring a bill of fare, d'ye hear? —*Monsieur*, (said the waiter, staring,) *me no understand Inglish.*— You dont, hey! Why then, G—d dam'me, tell your master to send us a fellow that does. (Another waiter arriving). Here you son of a land lubber, bring in something decent to eat. None of your black broths, cursed fricasée of frogs, or half-starved rabbits ragoued up into a kickshaw; some beef dam'me, plain roast is good enough for me, by G—d!"—*Oui, Monsieur, vous aurez le ros-bif tout de suite.*" This interesting conversation, and volley of expletives, was checked by a large Newfoundland dog, who, in following the officer up the room, had stopped on the way, tempted by the sight and smell of a delicate *gigot de mouton*, which was visible from the corner of a table occupied by a spruce Abbé and Italian opera dancer, *bien poudré*, and dressed for the ballet of the evening, who were warmly disputing whether a *gigot de mouton fait à la merveille avec sauce piquante*, was, or was not preferable to *maccaroni à la parmesan*. In the heat of controversy, the *gigot* was nearly edged off the table by the arm of the impetuous Abbé; when impatient Cæsar thinking a donation was intended for him, snapped at the knuckle of the *gigot*, and with an irresistible pull brought down dish, mutton, haricot, cloth, and plates, on the extended leg of Signor Scamperino, and ran growling with the *gigot* in his mouth under his master's chair. Up started the Abbé in a rage, vociferating—*Oh! Morbleu! sacristie! quel voleur! Oh! mon gigot—Voila un infame chien—je voudrois qu'il t'etrangle, villain!*"—"*A il mio gamba*, (cried the Italian, rubbing his leg,) *e rotta, e non piu ballare—cospetto di Bacco! corpo di Christo! maledetto sia il dog Inglese che ho fatto! A me! son disfortunato e rovinato!*—Oh my leg! it's broken, and I shall no longer be able to dance—O Bacchus! body of Christ! curses alight on the English dog who did the act—

act—Oh Lord! I'm undone! I'm ruined! These exclamations, the clattering of the broken dishes, and the coolness of the dog gnawing the gigot under the table, attracting the attention of the company, created a general laugh at the distress of the Signor and his friend, the passionate Abbé, the latter crying out furiously "*pour son chapeau, ses gands, sa canne, le compte, tout etant en desordre ou perdu,*" in the confusion of a crouded room, where *la jolie Maitresse* at the bar was too deeply engaged in receiving the *milles attentions* of her admirers, and delivering out *bonbons* from a *boudoir orné*, to attend to any mishap at a distance; her surrounding galants pressing her to give them ices *à la crême, à la pistache, des marons glacés, des verres de limonade, d' orgeat, des bavaroises, une tasse de caffé, des liqueurs de cannelle, anis, giroffle, noyau de la Martinique, de* Mde *Amphon, des isles,* and a thousand other et-cetera, with which her *jo'i* cabinet was replenished. This agreeable confusion of tongues, and discordant sounds, continued till a boy entered the room, and distributed *les petites affiches*, announcing the play of the evening, (wherein *la charmante* Ponteuille was the chief performer,) a piece which had had a run of several nights, but of which *tout le monde* was still anxious to be spectators. This broke up the sittings, the *amateurs* quitted their seats with alacrity, the *dilittante* hopped off in graceful attitudes, and the *cognoscenti*, after taking their *pousse caffé* with a grave and dignified air, marched *au spectacle sans deliberation.*'

The conversation in the Paris Diligence is managed with due regard to French character and manner: but it is not of a cast sufficiently amiable or interesting to justify an extract. In its stead, we transcribe the concluding paragraph and sonnet:

'To those who have witnessed the gay and animating scenes of Paris, as it existed at the period when these sketches were drawn, I need not apologize for quitting my subject rather abruptly,—for "memory that would full fain the past recall," will also obtrude on the feeling mind recollections of subsequent events, at which Humanity shudders, and Nature stands aghast! - I shall, therefore, pass over in silence the former delights of this great metropolis, and with more pleasing sensations express the joy I experienced when I once more beheld the white cliffs of Dover rearing their proud heads above the ocean. The peculiarly pleasing feelings of the heart, natural to every man on reviewing his native country after a twelvemonth's absence, cannot be better described than in the following lines of a much esteemed friend, which occurred to me as I stood on the beach at Calais, awaiting the moment of departure for England:—

'SONNET

On a distant View of England.

'Thrice welcome to my longing eyes again,
Dear native land: tho' but in shadow trac'd,
As day first dawns upon the liquid waste;
And the chill mist hangs darkling o'er the main:

But

But lo the change! while yet I linger here,
The dewy Morn shakes off her mantle gray;
Touches with brighter tints of sunny ray
Thy cliffs, and streaks with gold the prospect clear.
Absence, that wakes each social sympathy;
Affections, that no distance could impair;
Soft age of youth, that past without a sigh,
And rising manhood, stranger still to care;
All these point homeward; and direct an eye
Of fondness, mingled with impatience, there.'

Having thus endeavoured to appreciate the merit of this performance, we are so far from wishing to 'fasten on its defects with the severity of critics,' that we would recommend it as an agreeable companion to all who relish continental tours, pleasing description and anecdotes, genteel writing, and typographic luxury.

Muir.

ART. V. *Poems,* by John Penn, Esq. Consisting of original Works, Imitations, and Translations. 2 Vols. Royal 8vo. 1l. 5s. Boards. Hatchard.

THIS indefatigable votary of the Muses, whose productions we have had frequent opportunities of announcing *, is the grandson and representative of the elder branch of the founder of Pennsylvania, and resides at a beautiful seat, erected by himself, called Stoke Park, in Buckinghamshire. When the Reason of Nations shall have attained its full maturity, the act of William Penn in settling Pennsylvania will be considered as possessing a glory superior to all the blood-earned conquests of antient or modern times. His poetical descendant appears to be animated by the liberal and tolerating spirit which has distinguished the sect to which his illustrious ancestor belonged: but he avows himself a member of the church of England, and expresses great zeal for the preservation of establishments.

The present volumes consist partly of old pieces, which have undergone some alteration and revision, and partly of original poems. A long explanatory and critical preface, unfolding the sentiments and intentions of the author, exhibits him to us as a man of an elegant and cultivated mind, and justifies the opinion which we formerly gave of his abilities. As a sincere lover of letters and the arts, he seems to have taken great pains in ascertaining the principles of taste: but we cannot compliment him as having been uniformly successful in his conclusions and illustrations. His explanation of *Fitness*, in the preface,

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* See Rev. vol. xxvi. N. S. p. 68., where other references are given.

p. xl. may possess the merit of novelty, but we cannot regard it as adapted to convey clear ideas:

'Fitness may not unaptly be compared to a pane of fine plate-glass, through which we sometimes see a beautiful prospect. It is not itself the object at which we look, but merely the medium through which we discover it. Where the plate-glass is opposite to an inner court, we no longer perceive any thing that charms us.'

We should rather have said, by *Fitness*, we generally understand adaptation of parts, congruity, and harmonious disposition of objects, which may be contemplated through a pane of plate-glass, but which exists independently of the medium through which we may view it.

Another maxim, which this gentleman lays down, demands also some consideration. 'Such critics as aspire to acumen,' he says, 'will avoid the imputation of judging compositions by their *manner*, which only claim notice on account of their *matter*.' Critics who aspire to acumen will take both the *matter* and the *manner* of compositions into their consideration. Poems, in particular, require that the beauty of expression should be as much consulted as the justness of the sentiment; and Horace's advice, *dulcia sunto*, should be always present to the poet's mind. It is not sufficient that the *matter* be good, the *manner* must also be charming. Strokes of genius and profundity of thought may be displayed, without polish and elegance; and though the want of grace cannot deprive them of their value, their attractions must ever be diminished by this deficiency. In what work of taste is the *manner altogether* disregarded, and *notice only* claimed on account of the *matter?*

Mr. Penn enters a protest against being criticized and condemned merely on the secondary ground of *style*; and he declares that it is indifferent to him whether his publications are received with smiles or frowns, since favour cannot be more flattering to him than discouragement. It is, however, almost impossible for an author, who publishes with fine types, on fine paper, and with splendid embellishments, to possess absolute indifference respecting the opinion of the world:—but setting aside all personal considerations, our wish is to render the most ample justice on this as on every occasion.

From the new pieces, we shall first transcribe an entire poem:

'Ode *on the Death of* Thomas Fountayne, *Esq.* * 1780.

'Say, what new fierceness of intent,
Death, that relentless hand has arm'd?

'* Son of the present Dean of York, and the subject of one of Mason's epitaphs.'

Or dream'st thou, the dire weapon sent,
None, save its victim, shall be harm'd?

'Ah! see the saddest, where thou art,
Of Sorrow's weeping train advance,
With bows all strung; and many a dart
Swell the dread triumph of thy lance:

'Here on the parent doom'd to alight,
Or, trembling with a parent's fears,
Whom Nature's ties less close unite;
There fill a sister's eye with tears. *

'Listless around thy victims watch,
Pale friends, or bear, with Hurry's gait,
Laborious aid; though scarce to snatch
A moment from impending fate.

'Yet there, ah! dost thou not rejoice,
And feed insatiate on their sighs?
Say, dost thou, with exulting voice,
In fancy drag thy prostrate prize?

'The stroke, that will each lifeless joint
Relax, with Mockery's scowl prepare;
Or, smiling scan the weapon's point
Ere thou hast hurl'd it in the air?

'So towards him didst thou seem to bend
Thy course, so fierce with threatening mien,
Ere, early struck by thee, my friend
Low bowing to the earth was seen.

'Meek was the head, remorseless Power,
That sunk beneath thy whelming rage;
Nor eye did with defiance lour,
Nor tongue provoke thee to engage:

'Meek, as in bowers where Cam late saw
Joy inoffensive light his face,

'* Under the characters mentioned in this stanza, are attempted to be shadowed all his nearest, or dearest, relations; and among them, his eminently respectable uncle, the late Right Hon. Frederick Montagu; on whose regard for justice and the rights of individuals, duty and interest here equally conspire to dissuade from silence. One of the last, if not the last, public act of that upright and independent senator, who afterwards retired to a private station, was to propose in parliament the honourable annuity, by which Great Britain has, in her generosity, acknowledged the incalculable losses suffered by the late proprietaries of Pennsylvania; and, what they judge of more consequence, the competent character and merits likewise of their family, and particularly of their ancestor, who was its founder.'

While, passing, he still drudged to draw
His slimy train, with sluggish pace.

'Yet there bright Naiads we espied,
Who to the Nine their seats display'd:
Together, pleased, how oft we hied
To court the willow's slender shade.

'Mark Cam his leaden urn upheave,
Or hail, on vocal banks, each Muse,
When Morn paced forth, or silent Eve
Came sprinkling every flower with dews!

'Hope then was his, and Youth to him,
Gay-crown'd with roses, sweetly smiled;
Pleasure drew nigh, in festal trim,
Pleasure, that often has beguiled!

'Ev'n fickle Fortune, dubious dame,
Grasping the horn fair Plenty wore,
Cast round each treasure, as she came,
Bade him take freely of her store.

'He saw; he stoop'd; but Death was near,
And, poised, the unerring weapon shone—
Straight Youth and Pleasure disappear,
And Fortune's wrested gifts are gone;

'Ah! never to return; as they,
High on the fleet winds borne afar,
To various votaries, obey
The guidance of a happier star!'

In the *Elegy on the Departure of Miss P— and J— Ch— from Philadelphia*, one of the stanzas is *imperfect*. The sense, indeed, is clear, and so far the *matter* is right: but the *manner* of expressing it is objectionable, particularly in the omission of the word *them*, in the last line:

'Nor flock, nor lowing herd, enraptur'd feeds,
Nor Nature's voice, *and* Love's, salute the grove,
While Duty far the youthful sisters leads
To fields, *whence late the gathering tempests drove.*'

The Sonnet, on a very tame Pigeon, which had died from picking up some poisonous substance, contains no other reference to the fact of the bird being poisoned, than that it was 'check'd by sickness;' and it has a very lame conclusion.

From the Epigrams, we have formerly taken specimens.

Among the Miscellanies, is a Sequel to Gray's Long Story. It is a bold attempt to measure lances with Gray; and we cannot compliment Mr. Penn on the occasion. We thank him, however, for having erected an elegant monument to the memory

memory of this divine poet, near the spot on which his remains were interred.

Oda ad venerabilem Amicum, Cantabrigiæ habitantem, è Germaniâ missa, anno 1782, possesses classical elegance.

The Battle of Eddington, a tragedy, formerly published, concludes Vol. I.

The pieces in the second volume are;—*The Squire's Tale, modernized from Chaucer.—The Rights and Duties of the Rich, an Imitation of the 6th Satire of Persius.—The English Art of Poetry, an Imitation of Horace's Epistle to the Pisos.—Various Translations from Petrarch.*

On the subject of Imitations, Mr. P. makes the following judicious remarks in the Preface:

'The name of *Imitation* may have discredited it in the opinion of many, being by Horace, in one instance, connected with the idea of servility: but if we estimate the task that it imposes on the poet, who meets all its difficulties, by multiplying those parallelisms which form its essence to the degree which its nature requires, and to a greater than they have yet been multiplied; and by letting no proper name, nor interesting passage in the author imitated, be passed over, without providing others of equal consequence to match with them, we may be induced to allow, that it would require in him some compass of thought, at once to do this, and to do it to the satisfaction of his readers. Its resources and claims to respect will be more evident, when we consider how peculiar and distinct it is from every other literary labour, and what an inexhaustible source of variety the lapse of time provides, by the private and public events of all sorts which are continually occurring. The same satire that is imitated in one century, in ever so good a manner, may in the next be furnished with new characters and events, so as to form as good, or, possibly, better parallelisms.'

We shall take one passage from the imitation of Persius:

* 'Our bounds are clearly traced: our incomes shew
How far the wants of Moderation go.
[1] Empty your barns; next year they will be stored.
Perhaps, 'tis Duty warns, our aid implored.
[2] Some friend a gainful voyage hopes, till, mark!
Blown on [3] the rocks of Scilly, splits his bark:
His all is lost, and to the distant eye
The shiver'd wreck, emerging, points on high,
Where sea-gulls haunt, amid the ocean's roar:
[4] He gains with labour Cornwall's dreary shore.

That

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* 'Messe tenus propriâ vive: et [1] granaria (fas est)
Emole: quid metuas? occa; et seges altera in herbâ est.
Ast vocat officium. [2] Trabe rupta, [3] Bruttia saxa
Prendit amicus inops: rémque omnem, surdáque vota
Condidit: [4] Ionio jacet ipse in littore, et unà

That he may save some portion of renown,
[5] Nor bear a mean petition through the town,
Can we not sell? Cries one, " with acres part!
[6] I know whose heir would take it much to heart.
Scarce would his funeral decently pass off:
[7] At promised pomp the nettled squire would scoff.
What! with impunity the estate impair!"—
But philosophic Gray would little care,
And, by [8] the forty sages unperplex'd,
Hold, [9] such degenerate wants our nation vex'd
Since they taught wisdom, who long taught to dance,
And to ape Reason, was a mode from France.'

The versions from Petrarch profess to be executed on the principle, that 'the translator ought to express the author's thoughts, in the same manner that he would have done if he had written in the same language.' How far Mr. P. has executed this task, the reader will be able to judge by the following specimen:

SONETTO LXIX.

Erano i capei d'oro all' aura sparsi,
Che'n, &c.

'SONNET.

'HIS REASON FOR LOVING LAÛRA AT THIRTY, WHEN HER BEAUTY WAS IMPAIRED.

'Her golden locks were in the wind display'd,
That blew them round a thousand graceful ways,
While in her eyes an undiminish'd blaze
Still beam'd; though now by Time less vivid made;
And pity, as I thought, her looks display'd,
But know not if, as true, it tempted praise:
That Youth then fired my bosom, can it raise
In any wonder, with such fuel's aid?
'Twas not the motion of a mortal's form,
But something heavenly, and her speech's sound
Unlike to what we hear on earth below.
'Twas some pure spirit; a bright sun, around

Ingentes de puppe Dei: jamque obvia mergis
Costa ratis laceræ. Nunc et de cespite vivo
Frange aliquid: largire inopi, [5] ne pictus oberret
Cæruleâ in tabulâ. " [6] Sed cœnam funeris hæres
Negliget iratus, quòd rem curtaveris: [7] urnæ
Ossa inodora dabit; seu spirent cinnama surdum,
Seu ceraso peccent casiæ, nescire paratus.
Túne bona incolumis minuas?" sed Bestius urget
[8] Doctores Graios: [9] ita fit, postquam sapere urbi
Cum pipere et palmis, venit nostrum hoc maris expers,
Fœnisecæ crasso vitiârunt unguine pultes.'

Appearing

Appearing then to beam its influence warm;
Nor can it heal the wound to unstring the bow *.'

The enthusiastic admirers of the original, we suspect, will be of opinion that it is possible to exhibit Petrarch with equal fidelity, and yet with more elegance and spirit, in the English language.

These volumes are embellished with several very beautiful engravings; among which are two portraits, one of Mr. *Penn* himself, taken from an original bust, and another of *Francesco Petrarca*, from a mould, after an original picture in the Piombino Palace at Rome.

Mo-y.

ART. VI. *An Essay on the Structure and Formation of the Teeth in Man and various other Animals*; illustrated with Copper-plates. By Robert Blake, M. D. Being principally a Translation of his inaugural Dissertation, published at Edinburgh, September 1798. 8vo. pp. 240. 15s. Boards. Dublin. 1801. London, Cadell and Davies.

THOUGH the author is indebted, for many parts of this curious and interesting essay, to the materials afforded him in the works of preceding writers, he has discovered much ability, not only in the examination of their observations and opinions, but in pursuing those parts of the inquiry to which sufficient attention had not been paid. He has devoted a great portion of time and thought to the investigation of this obscure and complicated subject; and he has succeeded in giving a more perspicuous and satisfactory account of the structure and formation of the teeth, than any which has yet appeared.

Dr. Blake commences by tracing the rudiments of the temporary teeth, from the time of their appearance as a pulp, inclosed in a capsule or membrane, to that of their complete formation: but, as his remarks in this part of his work are not essentially different from those of Mr. Hunter, it is unnecessary to detail them. His observations on the membrane surrounding the pulp do not altogether accord with those of that distinguished writer; since, though they both principally ascribe the formation of the enamel (to which the present au-

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' * This line was chosen, a century afterwards, for his motto, by a king of Naples, on his queen's death.

" Le roi Rène apres la mort d'Isabeau de Lorraine, sa première femme, prit cette devise:

" Un arc turquois avec la corde rompue, et le dernier vers de ce sonnet:

" Piaga per allentar d'arco non sana."

MEM. DE PETRARQUE.'

thor prefers giving the name of *cortex striatus*) to this membrane, Dr. B. describes it as adhering firmly, after a certain period, to the neck of the tooth; and therefore as not being liable in dentition to the pressure from below, which many are disposed to regard as producing some of the most alarming symptoms of that period. From this circumstance, and from the membrane itself being always absorbed as soon as the enamel is completed, he infers, in a subsequent part of the volume, that the symptoms occurring in dentition generally arise from other causes than those to which they have been usually ascribed; and that, when topical irritation is produced, it arises from pressure of the tooth on the gum itself, and very seldom requires any operation.

Of the formation of the permanent teeth, the author gives this account:

'When the rudiments of the temporary teeth are tolerably advanced, the internal part of the gum, or rather the upper part of each membrane destined to form one of the temporary teeth, sends off a new sac. These sacs are each at first contained in the socket of the one to which it is to succeed; and are so intimately connected with the membranes of the temporary teeth, that they cannot be separated without tearing one or both, and may be torn along with the first sacs out of the sockets.'—

'As the sacs of the permanent teeth advance, the sockets of the temporary ones become enlarged, and little niches are formed in the internal plate of the alveolar processes answering to each socket, which are situated rather laterally, that is to say, at a greater distance from the symphysis or centre of the jaw, than the centre of each respective temporary socket. These niches do not penetrate so deep as to the bottom of the temporary sockets, but encrease in proportion with the size of the permanent sacs, and gradually form a distinct socket round each of them. There is, however, an opening left immediately under the gum, through which the membranes of both sets of teeth continue to be connected.'

So early as the fourth month after conception, the rudiments of the anterior permanent grinder may be seen; originating, in the manner now described, from the posterior temporary one, and contained in the same socket: 'but,' continues the author,

'As the permanent grinder advances and the jaw increases in length, a process is sent backwards from the upper part of its membrane, which at first is contained in the same socket. This process gradually swells into a sac, in which is contained the pulp, whence the middle grinder is to be formed; and as ossification advances, the parts become separated by a bony partition, the connexion however is still kept up. When the membrane of the middle grinder is tolerably advanced, it sends off a process in a similar manner, to form the sac of the posterior grinder or wisdom tooth.'

Dr.

Dr. B. accounts for the shedding of the teeth by the permanent teeth rising and pressing against the socket and fangs of the former, and thus producing the absorption and the consequent separation of the body of the tooth from the jaw. If this pressure is by any means prevented from taking place, the temporary tooth, instead of losing its roots, and falling out, will retain them, and continue fixed in its socket.

Mr. Hunter was of opinion that the enamel could not, like the other bones, be affected in colour by madder: but Dr. Blake has seen it evidently tinged in a young pig which had been fed for some time on that substance. This effect, he concludes from some ingenious experiments of Dr. Rutherford (Botanical Professor at Edinburgh), made with the view of ascertaining the reason why the bones receive a much deeper tinge than any other part of the body, is owing to the union, at the time of its deposition, of the matter which forms the enamel, with the colouring particles of the madder dissolved in the serum.

'The colouring of the bones of a living animal by the use of madder (says the learned Professor) is in every circumstance analogous to the preparation of lakes. The colouring matter of the madder, passing unaltered through the digestive organs of the animal, enters the general mass of fluids, and is dissolved in the serum of the blood; to which, indeed, if it be in large proportion, it communicates a very sensibly red tinge. But there is always present in the blood, and in a state of solution in the serum, a quantity of the earthy matter of the bones, phosphate of lime, ready to be deposited, as the exigencies of the animal shall require. Now, the phosphate of lime is an excellent mordent to madder, has a strong affinity to it, and consequently is admirably fitted to afford a base to the colouring matter of it, and thus forms a lake. This is what actually takes place, whenever, in such circumstances, by a peculiar animal process, the matter (which probably serves to keep the phosphate in solution) being withdrawn, this concretes within the cellular texture, into the fibrous and solid matter of the bones: for at the instant of its losing its solubility, it powerfully attracts and combines with the colouring matter of the madder, that is present in the serum, communicating insolubility also to this colouring matter, and hence they both concrete together into a homogeneous mass, not white or colourless, as the pure earth of bones usually is, but tinged of a full crimson or carmine colour.

'That this is actually the case may be shewn by various experiments. Thus, if to an infusion of madder, in distilled water, be added a little of the muriate of lime, no change is perceived; but if to this mixture be added a solution of the phosphate of soda, immediately a double elective attraction takes place: the muriatic acid, combining with the soda, remains suspended or dissolved in the water; while the phosphoric acid, thus deprived of its soda, combines with the lime, which the muriatic acid had parted with, and

forms phosphate of lime, or earth of bones. This substance being, however, insoluble in water, falls to the bottom: but having combined, at the instant of its formation, with the colouring matter of the madder, they fall down united into a crimson lake, precisely of the same tint with that of bones of young animals, which have been fed with madder.'—

'The enamel of the teeth receives no colour—because in fact there is no change in that substance, with respect to either secretion or absorption after it is once formed.

'But it by no means follows, that the enamel of the teeth may not acquire a tinge, in the same manner as the earth of bones, provided that the fluids of the body were sufficiently loaded with the colouring matter of madder, or other such tinging material, at the time that the enamel is secreted, or first assumes a concrete form; as in young animals while their teeth are just in a nascent or incipient state; or perhaps still better, in the fœtus in utero, viz. by mixing the tinging materials plentifully with the food of the mother during her gestation.'

Dr. Blake has devoted a chapter of his work to the consideration of the teeth of various animals, and particularly of the graminivorous; which are distinguished by having the enamel not only covering the body of the tooth, but descending through its substance, and forming a variety of convolutions. We do not, however, conceive it necessary to analyze this part of his essay, because we have already noticed an account not materially different, given in two memoirs by Mr. Corse and Mr. Home, in the Philosophical Transactions for 1799*. Yet it is proper to mention, in justice to the present author, that, from the statement given in a supplement to this volume, it appears that his account of the Structure of the Teeth of Graminivorous Animals was published at Edinburgh, in a thesis, in September 1798, which was some time before the papers above mentioned were laid before the Royal Society; and that, about the beginning of the same month, he discovered, by a longitudinal section, that the same principles were applicable to the tooth of the elephant. The latter circumstance occurred too late for insertion in his thesis, but he had an engraving immediately taken of the section of the tooth, which was shewn, and a copy of his thesis presented, in the company of some of the author's friends, about the same period, to Mr. Corse, then in Edinburgh; who admitted the novelty and importance of Dr. B.'s discoveries, and promised to notice them in his intended publication. The Doctor, therefore, feels himself much hurt, and with apparent reason, that his thesis should have been passed unnoticed by both the gentle-

* See Rev. N. S. vol. xxxi. p. 232, &c.

men

men above named; and that an engraving, precisely similar to that which was shewn to Mr. Corse and the author's friends, should have been given in each of their papers without acknowlegement or remark.

Yell.

ART. VII. *A Rough Sketch of Modern Paris;* or, Letters on Society, Manners, Public Curiosities, and Amusements, in that Capital. Written during the last two Months of 1801 and the first five of 1802. 8vo. pp. 319. 6s. 6d. Boards. Johnson, 1803.

WE do not apprehend that we need yet say,

"Too much of Paris hast thou, gentle reader;"

though several publications have appeared, since the Peace, professing to be descriptive of this city in its modern state. Curiosity is alive on this subject; and those who have neither leisure nor ability to explore for themselves will be thankful to that traveller who endeavours, by the minuteness of his details and the accuracy of his delineations, to compensate to them for the want of an ocular survey. By blending together several accounts of historians, equally intelligent and faithful, a more satisfactory knowlege will be obtained than from one solitary narrative, however judiciously compiled. Though the season, order, and method of observation, and the colouring which the habits and prejudices of different men throw on the same objects, must influence description; yet, by weighing and comparing several statements together, the judicious reader may collect ideas which nearly approach to accuracy. After a most subversive revolution and sanguinary war, the Englishman cannot visit Modern Paris, nor be received by the Modern Parisian, with calmness and insensibility; and such is the state of the public mind in both countries, that we must often seek truth by hearing many witnesses.

The author of the present rough sketch is intitled to distinction among the several delineators of Modern Paris. He possesses a clear and well-informed mind; he has given particular attention to whatever fell under his observation; and his style is easy, gentlemanly, and unaffected. Of himself and of his undertaking he thus speaks in the preface:

'To divest myself, as much as possible, from every prejudice, has been a duty which I have strictly endeavoured to fulfil; yet I fear, such is the effect of early habit, that many marks will still be discovered of national predilection. I beg leave, as a check against faults of this kind, which I may have involuntarily committed, to request my reader to remember, that the observations now laid before him, are those of a man accustomed to English opinions, English

glish society, and English manners. In judging of another country, a foreigner cannot help making a comparison between what he has known at home and what he sees abroad. In doing so, the partiality, which he naturally entertains for his own customs, may lead him to condemn, as faults, what may be simply deviations from the former. That such is the general bias of the human mind, I am fully aware, and I cannot flatter myself that mine has escaped it. This consideration must plead my excuse with the French, if I should sometimes appear severe; and the same ought to prevent my countrymen from placing too implicit a confidence in my judgments, where it may be my misfortune to condemn. My hand has faithfully drawn what my eye beheld; but the sight may be jaundiced, and, in that case, the picture will be incorrect.

'The intention of this work being simply to describe the internal situation of the French capital, all religious and political discussions will be avoided. The causes, events, and consequences of a revolution, which has no parallel in history, I leave to abler and more experienced writers. To point out to strangers the objects most interesting at Paris, to convey some previous information to those who intend going thither, and to lay before such as are prevented, by their other occupations, from undertaking the journey, an account of the pleasures, festivals, buildings, and mode of living in that metropolis, is the task I have undertaken, a task which, however comparatively humble, is neither useless nor unimportant.'

The Letters which form this volume correspond to the account given of them by their author; who appears to have made the most of his time by seeing every thing remarkable in the French capital, and minutely detailing the result of his observations for the amusement and information of his friends. There are 32 letters; of which the first is dated October 30, 1801, and the last, May 14, 1802. With reflections on the landing at Calais, the narrative commences; whence we pass to the conduct of the custom-house officers, municipality, and commissaries;—to the theatre;—to the comfortable inn at Montreuil, celebrated by Sterne;—to the behaviour of landlords, waiters, and post-boys, who are said to be civil, and the people in general to be 'not only civil but respectful, and infinitely more so than before the Revolution;'—to the magnificent but miserable inn at Amiens;—to Chantilly, and to Paris; where the first thing noticed is the difficulty of obtaining lodgings. The following is the first memorandum made for the benefit of the author's countrymen who intend a visit to the seat of the Chief Consul:

'The inns are nearly as dear as those of England; and it is now not less necessary, than under the *ancien régime*, to make a previous bargain *, before the horses are taken from the carriage. If

* In the 24th letter, the author gives a proof of this statement by adducing the heavy charge at the *Little Trianon* for one night's lodging:

If this is not done, impositions and disputes are sure to occur.

'On arriving at Paris, I drove to several hotels, before I could get accommodated *at all*. I am now wretchedly lodged, and fear, from what I have already seen and heard, that I must waste a considerable portion of valuable time, before I shall obtain such apartments as I wish. Good rooms are very scarce, many of the *hôtels garnis* having been unfurnished during the revolution, and those which remain being nearly filled with foreigners, who, since the peace, have flocked hither in great numbers, from every nation of the world.

'Persons, intending to visit Paris, ought to write some days beforehand to their correspondents, if they desire to be comfortably lodged on their arrival.'

To the palace and garden of the Thuilleries, to the Louvre, to the Museum of the Arts, and to the Gallery of Antiquities, our attention is next directed. We are pleased with the traveller's account of the effect produced on his imagination and feelings, by the magnificent and well arranged collection of pictures in the gallery of the Louvre; the length of which is at least equal to a quarter of an English mile:

'At last I found myself in the magnificent room, which I have before mentioned, the walls of which are covered as far as the eye can reach with the sublimest efforts of human art. Where the mind has long been promised a pleasure, when fancy has dressed it in all her choicest colours, how seldom does the reality approach the phantom of heated imagination. For once I was not disappointed. I expected, it is true, a high gratification. I had formed to myself an exalted idea of the objects, which I was about to visit, yet the satisfaction I felt exceeded, far exceeded, what I supposed it possible for the power of sight to afford; nor did I believe that the hand of man was capable of attaining that degree of perfection, which I now beheld. For some time I was lost in wonder, I knew not where to fix my enraptured eye. A catalogue which was offered me, by one of the attendants, and which, as I afterwards found, is drawn up with great clearness and precision, roused me from this pleasing reverie, and gave some order to the train of my thoughts. The arrangement of the collection is admirable.

'After viewing the masterpieces of la Sueur, le Brun, Nicolas Poussin, and the three Van Loos, I supposed I had already seen the utmost efforts of the art, and even, under this supposition, was ready to allow that my highest ideas of the power of painting fell short of what these specimens presented. Think of my surprise, when, looking on my catalogue, I found that I had not yet passed the limits of the French school. Astonished and delighted I went on. The Flemish, Dutch, and German masters occupy the second division. Among

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ging: but, by appealing to a poor-looking magistrate, resembling the *pannosus ædilis* at *Ulubræ*, he obtained satisfaction, without paying any costs, not even so much as for the summons. Well might an Englishman remark this circumstance! *Rev.*

them

them I beheld the exquisite works of Van Dyck, of Hans Holbein, of Paul Potter, of Rembrant, of Teniers, and of Rubens. Sublime as were the first objects that had claimed my admiration, even they were exceeded by the latter. Nor had I yet seen the acme of the art. Charmed with the fancy and execution of all the Flemish painters, I was particularly pleased with the beautiful pasturage, by Paul Potter, every object of which seems alive on the canvass.

'A few steps would bring me in view of the wonders of Italy, to see which so many of my countrymen had crossed the Alps; yet so enraptured was I with the objects already before me, that it required all the importunity of my companions, to persuade me to proceed. I was soon rewarded for this temporary sacrifice, and in contemplating the almost supernatural works of Corregio, of Caravaggio, of the Carracci, of Dominichino, of Guido, of Leonardo da Vinci, of Paul Veronese, of Raphael and of Titian, I discovered, that what I had seen before were only so many links in the great chain of perfection, which was now complete. If among these models of the art, you wish me to name some particular picture, I should give the preference to the communion of St. Jerome, by Dominichino, which in expression, colouring, feeling, and variety, seems to me to possess every beauty united.'

In the descriptive catalogue of antiquities, we have a history of the celebrated statue called *The Apollo Belvidere;* by which the reader is informed, in the true style of French vanity, that 'a hero guided by victory drew this statue from the Vatican, and has fixed it *for ever* on the banks of the Seine.'

Society in Paris is described as divided into three classes; 1st, *l'ancienne noblesse*, or old nobility; 2dly, the governmental class, or constituted authorities; and, 3dly, *les parvenus, ou nouveaux riches*, upstarts, or new gentry. The riches and luxury of this third class may be inferred from the following extract:

'Nothing can exceed the splendour of the persons of this description. The furniture of their houses, the dress of their wives, their table, their plate, their villas, in short, all the "*agrémens*" of life, are in the highest style of oriental magnificence.

'To give you some idea of their manner of living, I will describe to you the house of madame ——— *, which I yesterday obtained the permission of seeing, in her absence.

'The house is situate in a street leading from the Boulevard, and is approached by a fine court, of considerable length. The back of the house looks on a very pretty garden, arranged *à l'angloise.* It was formerly the residence of a minister of state.

'The drawing room, and *salle à manger* †, were not yet finished. The furniture prepared for them was rich. I did not think it particularly beautiful; but the bed room and bathing cabinet, exceeded in luxury every thing which I ever beheld, or even ventured to imagine.

* Recamier, we believe. *Rev.*

'† Eating room.'

gine. The canopy of the bed was of the finest muslin, the covering of pink satin, the frame of beautiful mahogany, supported by figures in gold of antique shapes. The steps, which led to this delicious couch, were covered with red velvet, ornamented on each side with artificial flowers, highly scented. On one side stood, on a pedestal, a marble statue of Silence, with this inscription:

"TUTATUR SOMNOS ET AMORES CONSCIA LECTI *."

On the other, a very lofty gold stand, for a taper or lamp. A fine mirror filled up one side of the bed, and was reflected by one at the top, and another at the opposite side of the room. The walls were covered with mahogany, relieved with gold borders, and now and then with glass. The whole in excellent taste. The bathing cabinet, which adjoined, was equally luxurious. The bath, when not in use, forms a sofa, covered with kerseymere edged with gold; and the whole of this cabinet is as pretty as the bed room. Beyond this room is the bed chamber of *monsieur*, plain, neat, and unaffected; and on the other side a little closet, covered with green silk, and opening on the garden, in which *madame* sits, when she amuses herself with drawing. To conclude, I find the "loves," which "Silence guards," and of which this paphian seat is the witness, are those of January and May; for the wife is twenty (the greatest beauty of Paris), and the husband something less than sixty.'

The author next relates his being present at the opening of the Legislative Body; his visit to the benevolent institution in behalf of the deaf and dumb; and a specimen of the dullness and pedantry of Parisian society at a *thé* or evening party.

At last we come to the great feature of the picture, Bonaparte; and his portrait, though sketched with a few strokes, is (we are inclined to think) a strong likeness:

'His complexion is uncommonly sallow, his countenance expressive but stern, his figure little but well made, and his whole person, like the mind which it contains, singular and remarkable. If I were compelled to compare him to any one, I should name Kemble, the actor. Though Bonaparte is much less in size, and less handsome than that respectable performer, yet in the construction of the features, and in the general expression, there is a strong resemblance. There is, however, such originality about the appearance of the first consul, that, without having seen him, it is difficult to form an idea of his person. The picture of Bonaparte at the review, exhibited some time back in Piccadilly, and the bust in *Sèvre china*, which is very common at Paris, and which has probably become equally so in London, are the best likenesses I have seen. As to his dress, he wore the grand *costume* of his office, that is to say, a scarlet velvet coat, richly embroidered with gold, to this he had added leather breeches, jockey boots, and a little plain cocked hat, the only ornament of

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' * Silence guards the slumbers and the loves of this bed.'

which

which was a national cockade. His hair unpowdered was cut close in his neck.'

The speeches at the Tribunate are noticed as dull exhibitions; but the display of the ladies at the *bal des étrangers* was of an opposite character; and the author represents the indecorous mode of dressing, adopted by the Parisian *belles*, in as strong a light as any recent traveller. His reflections on this fashion deserve the attention of all such votaries of the mode.

A glance is taken of the various amusements of the Palais Royal, and we have a detailed account of the theatres, or *spectacles*.

At a party at the house of a *fournisseur*, or army contractor, the author saw General Berthier; and, that we may see him with our mind's eye, he informs us that

'He is a little man, plainly dressed, with cropped hair. His countenance is expressive, when he speaks; but his figure is diminutive, and his appearance by no means military. He is extremely polite, gentlemanly, and affable. I am told, he is by birth "*gentilhomme*;" and by his manner it is easy to see, that he must have passed the early part of his life in good company.'

The supper at a ball given by a *ci-devant* noble is represented as consisting of soups, hot dishes, *ligumes*, fruit, and pastry; after which, as a remove, two large plates, one of turbot and the other of salmon, made their appearance. This will strike the English reader as a singular arrangement: but it is asserted that '*all* good French suppers conclude with fish.'

Particular notice is taken of the Carnival, and of the masks, processions, &c. in the streets; and it is remarked, in praise of the Parisians, that, in the midst of their mirth and levity on this occasion, no indecency shocks the public eye, no drunken persons make their appearance, no woman is insulted, and no quiet inoffensive man dragged into a quarrel.

We are next presented with accounts of Bonaparte's audience, and of his address to the English gentlemen introduced to him; —of the antichamber of the *Musée Central*;—of the *Bois de Boulogne* and the promenade;—of the *palais du Luxembourg* and of the Pantheon;—of Versailles, St. Cloud, Petit Trianon, St. Germain, Malmaison, and the Waterworks at Marly;—of the Promenade to *Long Champ*, and of the *Te Deum* sung at *Nôtre Dame* in honour of the peace and the re-establishment of Religion;—of the Tribunals, or courts of law;—of the Manufactory of *Gobelins*, the Establishments of *les Enfans trouvés* and *les Invalids*, and *le Musée des monumens François*. To the last, a list is subjoined of those monuments most deserving of notice. which have been preserved from the destructive hand of the Revolution; and from the tombs of departed greatness, a

postscript

postscript transports us to the festivity of the living, to nothing less than a Consular dinner at the Tuilleries, to which the wife of this gentleman was invited by the Chief Consul. The following is the statement of it which she gave to her husband on her return:

'The entertainment was extremely elegant, and the sight very striking. More than two hundred persons sat down to table in a splendid apartment. The company consisted, besides the family of Bonaparte, of the ministers, the ambassadors, several generals, senators, counsellors of state, and other constituted authorities. The number of women present was by no means in proportion to that of the men, and did not exceed fifteen. All the English ladies, who had been presented to madame Bonaparte, were invited (though not their husbands) to this entertainment; but it happened, that only two remained at Paris.

'The dinner was served entirely on plate and *Sèvre china*, the latter bearing the letter B on every dish, and every plate; and the *plateau* was covered with moss, out of which arose innumerable natural flowers, the odour of which perfumed the whole room.

'The first consul and madame Bonaparte conducted themselves with much ease, and spoke very affably to those around them.

'The servants were numerous, splendidly dressed, and highly attentive. The dinner lasted more than two hours.'

A letter is devoted to a description, or rather enumeration, of the various literary establishments of Paris, which reflect so much honour on the French nation. It is remarked that

'Perhaps there is no town in the known world, which affords such favourable opportunities of acquiring and cultivating knowledge, as that from which I am now writing. On this subject, equality in the best sense exists; and while the poor man has the finest libraries, and most extensive collections opened to his use, without any expence whatever, he, whose circumstances are moderately easy, obtains, for a trifling consideration, every possible means of additional improvement.'

If this traveller throws temptations in the way of the reader, and excites within his breast a strong desire of visiting the French capital, on the other hand he endeavours to allay such anxiety by prudential considerations. All schemes of emigration, under the idea of living cheaper than in England, he discourages by a calculation and statement of expences at Paris. The French, it is well known, in their ordinary mode of living, practise more self-denials than we do, and have not in their language a word which expresses what we mean by *comfort*; it is proper, therefore, that, in an estimate of the expence of an English family at Paris, we should consider it 'with English ideas and English habits;' and thus contemplating

ting the subject, the author asserts that they would spend very little less than in London. Here is the detail:

'I repeat, then, that an English family settling here, with English ideas and English habits, would spend very little less than they would do in London, with a similar establishment.

'To enable you to judge for yourself on this subject, I shall mention the prices of the most essential articles of expence; some of which are lower, while others are infinitely higher.

'Meat is much cheaper, being only eleven or twelve sols per pound (or five or six pence English).

'Bread bears, at present, nearly the same price in the two countries.

'The keep of horses costs infinitely less at Paris than in London.

'Poultry is cheaper; and wine of the best kind may be bought for something more than we pay for good port.

'On the other hand, house rent is equally dear, if not dearer. Furniture is exorbitant; and dress of all kinds, both for men and women (only excepting shoes and gloves), is, beyond comparison, dearer in price, and more expensive in its kind.

'The price of amusements, in the first places, is nearly the same at the large theatres of Paris, as at those of London; and *spectacles* being infinitely more frequented at the former than in the latter city, much more is spent, in this article, in the one than in the other capital.

'Groceries are dearer, and fuel at least double.—Putting these articles, the one against the other, perhaps with economy eleven hundred pounds in Paris might purchase as many conveniencies as twelve in London. But I think even this difference is liberally allowed.'

For a finale, we are presented with a general view of Paris, principally taken as compared with London. Here the capitals of the two countries are contrasted, and their distinct merit is fairly appreciated. We have already made such ample extracts, that we must content ourselves with only a passage or two from this interesting letter:

'In width, cleanliness, and beauty, the streets of London have such a decided advantage over those of Paris, that I believe even a Frenchman would acknowledge, that the question could not be disputed. The footpaths of the former, on which the pedestrian may walk without danger or dirt; the excellent pavement, which prevents any fatigue from being experienced in the use of a carriage; and the brilliancy of the lamps at night, which renders the passage, in an evening, from one part of the town to another, rather a pleasure than a pain, are but ill contrasted by the narrow and filthy lanes of the latter, in which persons on foot are constantly exposed to every kind of accident and inconvenience; to the neglected carriage-ways, in moving over which individuals are bruised, and wheels rapidly worn out; and to the dismal and uncertain light, which a few lanterns,

hung by cords suspended from the opposite houses, faintly affords. But if the streets of Paris must yield to those of London, the former city is undoubtedly superior in its palaces and public buildings, and in the height, style, and architecture of private houses, the stone fronts, regular plan, and lofty dimensions of which, have a very commanding appearance. But though the edifices are finer, and the arrangement more convenient, each floor consisting of a complete set of rooms, yet, from their great size, it usually happens that the same house is inhabited by several families, and the stairs, consequently, becoming public, are as dirty and as disgusting as the common streets. Where too an individual keeps an entire house in his possession, the number of his servants is rarely proportioned to the size of his habitation, and either only a part is occupied, or the whole is neglected and in bad order.'—

'The eating rooms of French houses are very disgusting. Instead of the comfortable turkey carpet, handsome curtains, *stuccoed* walls, blazing fire, and ornamental sideboard, of a London parlour, the dinner is here served in a dark and gloomy apartment, called "*la salle à manger*," imperfectly heated with a stove, the floor generally of stone, and always without a carpet, the windows without curtains or shutters, and the whole dirty and uninviting. Where there is not a separate antichamber, the servants occupy the dining rooms in the absence of their masters; and, in that case, the smell, which such company are apt to leave, is extremely offensive.'—

'To those who are fond of the arts, and who devote their time to the pursuit, Paris offers objects of great interest and unequalled beauty. Persons who pass their lives in a career of dissipation, who are satisfied with public amusements, bought pleasures, and high play, will find here, decked in all the joys of variety, the means of gratifying their favourite wishes. To such as come to view the curiosities of the place, Paris will appear delightful during a residence of two or three months, as that time will be fully and agreeably occupied in examining its various institutions, and in visiting its different theatres, particularly if the traveller arrives in the beginning of spring, when the charms of nature are added to those of art. But to him whose attachments are centred within the circle of his own family, who is fond of the investigation of truth, and whose early days have been passed in the polished societies of London, Paris, after its great and striking beauties have once been sufficiently viewed, will appear comparatively tame, dull, and uninteresting. He will daily miss the freedom of conversation, which is so generally prevalent in England; he will look in vain for that manly sense, with which great national questions are discussed by men of education in London; he will be irritated by the flippancy of French politicians, and by the pedantic terms and laboured sentences, which take the place of sound argument and solid reasoning. He will find the amusements rather various than splendid. He will find society difficult when it is good, and dangerous when it is easy. He will admire the grace and elegance of the ladies, and will look with an eye of pity, if not of contempt, on the indelicacy of their dress. He will hear "la bonne compagnie" talked of in every set, and never defined. He will

perhaps at last discover that it only exists, where it does not assume the name, or, as Voltaire says,

"Qui ne s'appelle pas la bonne compagnie, mais qui l'est."

He will view with wonder and admiration the works of art, and see with no little pleasure and curiosity the extraordinary man now at the head of government. Such will be his principal sources of satisfaction at Paris. He will soon discover that every thing else, however blazoned out in the trappings of grandeur, or vamped up in the colouring of hyperbole, is only "air and empty nothing."

Our apology for amplification, in the present instance, must be found in the good sense and discriminating judgment of the author of these letters; which not only contain the fullest account of the public curiosities and state of society and manners in modern Paris, that has yet been given by any of our countrymen, but are written in a manner which inspires confidence in the veracity of the narrator. The work is indeed called *a rough sketch*, and is not to be supposed complete, nor totally devoid of errors: but they are few and unimportant in comparison with its merits. The typography is incorrect: but the addition of an ample *Index* deserves praise.

Mo.y.

ART. VIII. *Letters from France.* Written by J. King, in the Months of August, September, and October, 1802. In which some Occurrences are related which are not generally known; and many Conjectures may be found that seemed to have anticipated recent Events. 8vo. pp. 168. 5s. Boards. Jones. 1803.

THE writer of these letters does not, like the anonymous author of those just noticed, undertake a regular description of Paris, though every letter is dated from that city: but he chiefly employs himself in reflections on the past scenes of the revolution, to which are added anticipations of future events. We are informed, indeed, that Paris cannot be drained because it is built on a quarry;—that the foot-passenger is now in as imminent danger of being run over by carriages in the streets as before the revolution, and that 'to bear being knocked down patiently is a proof of good citizenship;'—that Paris swarms more than ever with spies;—that, whatever sanctity there may be in the churches, in every other part of the city, obscenity, immorality, and profligacy abound;—and that John Bull must expect to encounter exorbitant *traiteurs*, pilfering *bourgeois*, and tricking tradesmen, out of number. Excepting such notices as these, and a few remarks concerning Bonaparte, (some of which are not accurate, *e. g.* that 'he never goes abroad for recreation,') we find little which relates

lates to the present state of things. Mr. King is so deeply occupied in retrospection, that, in a letter dated Paris Oct. 1802, he speaks of 'visitors who *come* to the places of public amusement, streaming with blood from the massacres of the Chatelet, or *La Force*,' and says that he found 'no propensity to join in frivolous mirth, when the screams and groans of dying martyrs were vibrating in his ears;' as if these horrors, which have blackened the French Revolution, were still perpetrated. He seems proud of having been introduced to Santerre, the Brewer, who led the memorable attacks on the Bastile and the Tuilleries on the 10th of August, and commanded the National Guard when the ill-fated Louis XVI. perished on the scaffold. From him Mr. K. collected some anecdotes relative to the Bastile, and heard his apology or justification for ordering the drums to beat when the king endeavoured to harangue the people; a circumstance for which he has been universally condemned. Though Mr. King obtained introduction to Santerre by expressing a wish to inspect a brewing machine of his invention, the conversation soon left the brew-house for subjects of general politics, and the Bastile became the first topic of discussion:

'He shewed me (says the author) the master key of that tower of tyranny, within the walls of which so many crimes had been perpetrated; and several species of fetters, one pair of which had been found on the wrists of a man recently dead, who was either doomed by those who immured him in his cell to die thus miserably, or he was forgotten and starved to death. There was no register of this man's name or his imputed offence; human beings were but of little note in the estimation of the French Princes; though all are of the same nature, and of equal origin; people seem to have created artificial distinctions, and to have vested their governors with power for no other purposes than to reduce them to abjectness and slavery.

'There is no knowing what dreadful tragedies were acted in these profound subterraneous caves, where none entered but the victim and the executioner; if the fury of the populace had spared the governor, the world might have been furnished with a blacker catalogue of crimes than has yet been revealed; but their resentment was what such a scene, and the perfidy they met with, might naturally excite; the governor perished, and with him books, records, memorandums, and whatever could be found in a prison that for so many centuries had repressed liberty.'—

'Before I dismiss this subject of the Bastile, I will recite an occurrence that is well authenticated. It serves to elucidate the abuse of *lettres de cachet:* a man at an inn at Lyons, or near it, overheard Damien the assassin, confer on the design of killing Lewis the Fifteenth; as soon as the listener had collected all the intelligence he required, he hastened to Paris, got admission to the Minister, and told him what he had discovered; the Minister thought it an idle

story and paid no attention to it; but when Damien made his attempt on the King, the Minister trembled at his negligence and the consequences that might result to him from it: he deemed prevention more discreet than remedy, and obtained a *lettre de cachet* against the unhappy man who had informed him of Damien's design, that he might have no one to communicate with and tell of the Minister's inattention. I believe this unlucky being was immured for life, certainly he never saw the outside of the Bastile while the Minister lived.'

Santerre thus defended his conduct towards the King:

'General Santerre has been blamed for commanding the drums to beat, when the King was haranguing the people on the scaffold; the King had in the tumult of Versailles, in the carnage of the Tuilleries, and in his long confinement and sufferings at the Temple, shewn a calmness that savoured of apathy; now for the first moment of his life he felt emotion and was ruffled; he has been censured too, for mentioning his death with exultation. I wished to question Santerre on these two points, I touched on them and paused, he saw my drift and without hesitation entered on the subject; he said it was expected there would be a cry of mercy, and he had received peremptory orders to fire on those who called for mercy; he saw several well known aristocrats surrounding the scaffold and preparing to cry out; an immense body of Marseillois watched them and meant to answer it with a contrary exclamation. If this contest had ensued, thousands would have perished in it; he perceived what was passing, and from the most humane motives, (and not to drown the King's voice, and distress him in his last few moments,) he ordered the drums to beat; and, though the duty of seeing the King's sentence executed, devolved on him, it was impossible he could rejoice at an event, that however necessary was distressing and lamentable; he deplored it as much as any man in France, and tryed all he could to prevent it by repeated visits to the Temple, to instruct the King by what measures he might still save himself; he said several expedients were proposed to the King, but his rejection of them evinced that he had no confidence in the nation and would retort upon it if ever he possessed power. Once he thought the King would accede to his overtures, but he required some hours to ponder on them; he saw the Queen in the interim and declined further treaty. In the last extremity he made another effort, he went once more to the King, and told him his life was in danger if he temporized any more, but if he would listen to his overtures the King would be saved and liberated, he would forfeit his existence if he failed; again the Queen interposed, and Santerre was set at defiance. Soon after his doom was fixed, and negociation was unavailable. He complains that the King had no character, that he spoke like a parrot, and his actions seldom accorded with his words; his diction was pure, he was sententious, he delivered virtuous sentiments, and spoke with dignity, yet in action he was inconsistent and frivolous, his language was from books of instruction, no originality in it; he repeated what was suggested to him, but his deeds could not be controlled; they

were sudden and untutored; they betrayed his speeches and shewed that the King was no better than an automaton.'

Of the Queen, we are told that 'she had an *unaccountable* passion for Madame Polignac;' this severity is, however, softened in another place, by a remark on the unvarying friendship of the amiable Princesse de Lamballe, who so cruelly perished at *La Force*, towards the persecuted Marie Antoinette. 'The best encomium on the Queen's character, is this lady's attachment; it gives me an idea of qualities that I did not before ascribe to Antoinette.'

One subject is repeatedly mentioned in the course of these letters, viz. the execution of twenty-two members of the convention, comprising Vergniaud, Condorcet, Barbaroux, Gaudet, Brissot, &c. With them, Mr. King is of opinion, perished the eloquence, the disinterestedness, and the credit of the National Assembly. Yet he is so far an apologist for the revolution, that he reminds us that its chief actors were not unprecedented in crimes:

'If there have been murders in Lewis the Sixteenth's time, so were there murders in Charles the First's time; if the French had a Carrier, we had a Kirke; their Robespierre hardly exceeded our Jeffreys: and the sacrifice of Bailly and the twenty-two had a precedent in the deaths of Russel and Algernon Sydney.'

The peace of Amiens is said to be 'ill-timed, and to resemble a covered snare;' and the government of France is accused of wishing to make England another department to the already over-grown republic. It appears, indeed, that this peace was not made in the true spirit of peace; and that it has not promoted that real amity between the two countries, which leads to mutual confidence and the willing interchange of all good offices. War is not absolutely terminated by the mere cessation of hostilities: for, if the spirit of animosity remains, this destructive fire is only smothered for a time, not extinguished. Statesmen, therefore, when they sheath the sword without endeavouring to conciliate the minds of the contending parties, perform their duty in a very defective manner; and nations pay dearly for such half measures.

These letters are very incorrectly composed both by the writer and the printer: but they occasionally exhibit shrewd remarks and unbiassed opinions.

Mo-y.

ART. IX. *The Beauties of England and Wales;* or Delineations, Topographical, Historical, and Descriptive, of each County; embellished with Engravings. By John Britton and Edward Wedlake Brayley. Vols. I. and II. 8vo. 1l. 10s. 6d. (L. P. 2l. 8s.) Boards. Longman and Rees. 1801.

THE labours of Mr. Britton have before come under our review, and the account which we gave of his *Beauties of Wiltshire* * will enable our readers to form a competent judgement of the nature and object of the present publication. The work is designed to form a regular *Britannia*, and to comprehend a description of the principal objects in each county, alphabetically arranged; and this intention has been successfully accomplished in those parts of the performance which we have now perused.

Topographical notices do not alone occupy the attention of the authors; we find several historical and biographical inquiries, which enliven these pages, and bestow an additional interest on the publication; while at the same time the soil, the vegetable and mineral productions, the manufactures, and the population of the different counties are carefully investigated and represented.

The first volume contains an account of the Shires of Bedford, Berks, and Buckingham; and, among a number of circumstances which necessarily have often been detailed, it introduces to our knowlege some particulars which are curious from their novelty, and valuable from their importance.—The account of Donnington Castle, which is situated near Speen in the County of Berks, is amusing:

'It rears its lofty head above the remains of the venerable oaks which once surrounded it, on an eminence north-east of the grove. It was formerly a place of much importance; and, by commanding the western road, gave to its possessors a considerable degree of authority. When it was originally built is uncertain; but from a manuscript preserved in the Cotton Library, it appears that it belonged to Walter Abberbury, who paid C shillings for it to the King. Towards the latter end of the reign of Richard the Second, Sir Richard Abberbury obtained a licence to rebuild it; and from him it descended to his son Richard, of whom it was purchased by Geoffrey Chaucer, the parent of English poetry.

'Hither about the year 1397, in the 70th year of his age, the bard retired, in order to taste those sweets of contemplation and rural quiet, which the hurry and fatigues of a court had before prevented his enjoying. In Gibson's edition of Camden, it is asserted, that "an oak was here standing till within these few years, under which Chaucer penned many of his famous poems." This tradition is in all

* M. R. Vol. xxxviii. N. S. p. 416.

probability

probability a mistake, as most, if not all, of Chaucer's poems were written before his retirement; and even so long as forty years ago not the least remains of it could be found after the strictest search, and most diligent enquiry, among the neighbouring inhabitants. That "he composed his pieces under an oak of his own planting," is a story that has likewise been current, but is an absolute impossibility, as he was not in possession of the estate more than three years. He died in London, whither he had gone to solicit the continuation of some of his grants, in the year 1400.

'Alice, the grand-daughter of the poet, by marriage with William de la Pole, Duke of Suffolk, conveyed the castle into his possession. This Lord was the favourite of Henry the Sixth; but having abused the power which he had obtained over that weak monarch, was banished by the Commons. On returning to England, he was seized near Dover by the partizans of the Duke of York, and beheaded. From him it descended to Edmund de la Pole, who being executed for treasonable practices in the reign of Henry the Seventh, it escheated to the crown, where it remained till the 37th of Henry the Eighth, when it appears to have been granted to Charles Brandon, Duke of Suffolk. In the reign of James the First, it belonged to the family of the Packers, whose heiress married Dr. Hartly, ancestor to Mr. Hartly, the present proprietor.

'In the civil wars it was a post of great consequence, being fortified as a garrison for the King, and the government entrusted to Colonel Boys. During these troubles it was twice besieged; the last time by Colonel Horton, who, raising a battery against it, at the foot of a hill near Newbury, fired upwards of 1000 shot, by which three of the towers were demolished, and part of the wall; but the governor refused either to give or accept quarter on any terms whatever; and bravely defended the ruined fortress till relieved by the King's army, when his gallant behaviour was recompensed with the honour of knighthood. The day after the second battle of Newbury, it was again summoned by the Parliament's generals, who threatened, if the castle was not surrendered, that not one stone should be left on another. To this the governor replied, "that he was not bound to repair it; but was determined by God's grace to keep the ground afterwards." Various offers were then made to induce him to give up the place, but the knight was inflexible; and though he had permission to retire with arms, cannon, ammunition, and every thing else that belonged to the garrison, only answered, "that he would not go out of the castle till he had the King's orders so to do." This was the most favourable opportunity that had occurred for ruining the King's affairs; but the dissensions which then prevailed in the enemy's camp caused them to neglect it, and after one fruitless assault, nothing further was attempted against the castle. The Monarch a few days afterwards, came unexpectedly to its relief, and escorted his artillery and baggage to Oxford in safety.

'In Camden's time, this castle was entire. He describes it as "a small, but very neat place, seated on the brow of a woody hill, having a fine prospect, and lighted by windows on every side." The walls nearly fronted the cardinal points of the compass; the en-

trance being at the east end. The west end terminated in a semi-octagon, inscribed in the half of a long oval. It was defended by four round towers placed on the angles. The length of the east end, including the round towers, was 85 feet; and the extent from east to west, 120 feet. All this part is destroyed. The remains, displayed in the vignette, consist of the stone gatehouse, with its two round towers, and a small part of the east wall. The gate-way is in good preservation, and the place for the portcullis may still be seen.

'A stair-case winds up the south tower to the summit of the castle, which commands a most beautiful view of the Hampshire hills, and the intermediate country. At the conclusion of the civil wars, the ruinous parts of the building were taken down, and a house erected with the materials at the bottom of the hill. Round the castle, almost occupying the whole eminence, are the entrenchments thrown up for its defence in modern times. The site of these is difficult to be traced from the bushes and briars with which they are overrun; but their *strength* explains the reply of the governor, which, considering the state of the castle at that time, must otherwise have been a vain-glorious boast.

'Great numbers of cannon-balls have been dug and ploughed up round the castle; and some years ago, as an old well was opened, four brass cannon were found, six and four pounders.'

Shaw House, which is about the distance of a mile east of Donnington Castle, is thus described:

'It is a large edifice, built with brick, mixed with a quantity of stone, and became celebrated for having been the head-quarters of King Charles at the time of the last battle of Newbury. In an old oak wainscot of a bow window in the library, is a hole about the height of a man's head. This aperture, according to tradition, was made by a bullet fired at the Monarch, as he was dressing himself at the window, by a musqueteer belonging to the Parliament's army. The shot narrowly missed him; and the wainscot has been carefully preserved as a memorial of the transaction.

'This house was built by an eminent clothier, named Doleman, about the latter end of the reign of Queen Elizabeth. This gentleman, being enriched by his business, resolved to erect a spacious mansion, where the evening of his days might be passed in ease and retirement. This determination, it appears, did not agree with the ideas of his neighbours, the remembrance of whose illiberality has been preserved even to our days by an odd sarcasm:

> "Lord have mercy upon us miserable sinners!
> Thomas Doleman has built a new house, and has turned away all his spinners!"

'The grotesque humor of this distich pleads strongly in favor of its antiquity; and the various Latin and Greek sentences inscribed upon different parts of the house, evince that the sneers of the neighbourhood were not unknown to the builder. The descendants of Mr. Doleman, though the heirs of his estates, were not the inheritors of his prosperity; for the possessions, being much decreased, were at length sold to the Duke of Chandos about 1740.'

On

On the subject of the White Horse, which is a figure formed on the north-west side of a high and steep hill situated about three miles from Lamborn, the authors expatiate at considerable length; considering it to be 'the most remarkable antiquity in all Berkshire.' They have adopted the opinion of Mr. Wise in ascribing its formation to Alfred, as a trophy of the signal victory which he obtained over the Danes at Ashdown, in that neighbourhood, in the year 871.

In the account of the town of Wantage, which is memorable for having given birth to Alfred, we meet with many interesting particulars relative to that great Prince, derived principally from Mr. Turner's History of the Anglo Saxons *.—This town is also celebrated for being the birth-place of Bishop Butler, author of the *Analogy*.

Gratitude and respect to a poet who has furnished us with much exquisite pleasure, and reflected distinguished honour on his country by his splendid genius and correct taste, induce us to transcribe the short account of Binfield; a pleasant village about two miles north of Cæsar's Camp, surrounded with elegant seats, and situated in the midst of the tract called the Royal Hunt, in Windsor Forest:

'The soil, though of a light sandy nature, produces very good corn; and the meadows are of a peculiar rich quality. Few of the farms exceed 100 acres; a circumstance which has probably contributed to keep down the poor rates during the present dearth of provisions. In this parish the rate is not more than six shillings in the pound. On the side of the turnpike-road from London is a small yet neat brick house, once the residence of Mr. Pope's father, but now the property of —— Webb, Esq. Within half a mile of this building, in a retired part of the forest, on the edge of a common, is the favourite spot where the muse of Pope essayed the strength of her scarcely fledged pinions. On a large tree, beneath which the poet is said to have written many of his juvenile pieces, the words HERE POPE SUNG are inscribed in capital letters. This emphatic sentence is annually revised by a person from Oakingham, at the expence we believe of a lady of that place. The seat has been long removed; and were it not for the above inscription, all recollection of this spot, so interesting to the admirers of poetical genius, would probably have been lost. The beginning of the poem of Windsor Forest was composed in these *still haunts*, which the poet appears to have had immediately before him, when he wrote these lines:

'There interspers'd in lawns and op'ning glades,
Thin trees arise, that shun each other's shades.
Here in full light the russet plains extend;
There wrapt in clouds the bluish hills ascend.
E'en the wild heath displays her purple dyes,
And 'midst the desart fruitful fields arise,

* See our last Number.

That,

That, crown'd with tufted trees, and springing corn,
Like verdant isles, the sable waste adorn.'

Park place, the seat of the Earl of Malmesbury, is described at considerable length. The following passage displays a memorial highly honourable to the character of its late possessor, Field Marshal Conway:

'On a well chosen eminence, near the southern quarter of the ornamented grounds, stands a curious vestige of the manners of antiquity. This is denominated a DRUID'S TEMPLE, and was presented to General Conway by the inhabitants of the isle of Jersey, as a testimony of the respect and gratitude due to his vigilance as a governor, and to his amiable qualities as a man. This invaluable gift was accompanied by an appropriate and forcible inscription, which we shall transcribe in the words of the original.

'Cet ancien Temple des Druides
decouvert le 12me. Août, 1785,
sur le Montagne de St. Helier
dans l'Isle de Jersey;
a été présenté par les Habitans
à son Excellence le General Conway,
leur Gouverneur.

Pour des siécles caché, aux regards des mortels,
Cet ancien monument, ces pierres, ces autels,
Où le sang des humains offert en sacrifice,
Ruissela, pour des Dieux, qu'enfantoit le caprice.
Ce monument, sans prix par son antiquité,
Temoignera pour nous à la postérité,
Que dans tous les dangers Cesarée * eut un père,
Attentif, et vaillant, genereux, et prospere:
Et redira, Conway, aux siécles à venir,
Qu'en vertu du respect dû à ce souvenir,
Elle te fit ce don, acquis à ta vaillance,
Comme un juste tribut de sa reconnoissance.

'The stones which compose this temple are forty-five in number, and were all so carefully marked when taken down, as to be re-erected on this spot in their original circular form. They were discovered in the summer of the year 1785, on the summit of a rocky hill, near the town of St. Helier, by some workmen who were employed to level the ground as a place of exercise for the militia, and before that time were entirely hidden with earth, which appeared raised in a heap, like a large barrow or tumulus. The circumference of the circle is sixty-six feet; the highest of the stones about nine. They are from four to six feet in breadth, and from one to three in thickness. The entrance or passage faces the east, and measures fifteen feet in length, five in breadth, and four in height. The inside contains five cells, or cavities, varying in depth from two feet four inches to four feet three inches. The coverings of these cells and of the entrance are of stones from eighteen inches to two feet thick. Within this temple

* 'The Latin name of the island.'

two

two medals were found: one of the Emperor Claudius; the other so obliterated as to be unintelligible. The accounts of the history and antiquities of Jersey are very imperfect, yet it seems probable, that it was once particularly the seat of Druid worship. So lately as the year 1691, when Mr. Poindextre wrote some tracts concerning it, there were no less than fifty assemblages of rude stones, which that gentleman considered as Druid temples or altars; yet nearly the whole of these antique memorials have since been demolished. When, or by whom, the present structure was covered up is unknown; but it is supposed to have been buried by the Druids themselves, to preserve it from the violence and profanation of the Romans. All the stones with which it is formed are as rough and unhewn as when taken from the quarry. This curious structure seems to be a combination of the Cromlech, the Kistvaen, the stones of Memorial, and the pure Druidical, or bardic Circle. It is a very singular relict of *British* antiquity, and highly deserving of preservation as a vestige of the customs of remote ages.—Park Place includes an area of 400 acres; an extent of ground, perhaps, that comprises as great a variety of interesting prospects, as any of similar limits in the kingdom.'

We shall terminate our extracts from this volume with the anecdote of the vicar of Bray:

'Bray, a small village, about one mile from Maidenhead, has been rendered memorable from the conduct of a vicar who possessed the benefice in the reign of Henry the Eighth, and the three succeeding Monarchs. This man was twice a Protestant and twice a Papist; and when reproached for the unsteadiness of his principles, which could thus suffer him to veer with every change of administration, replied, that, "he had always governed himself by what he thought a very laudable principle, which was never on any terms, if he could avoid it, to part with his vicarage *." His name appears to have been Symon Symonds. He died in the forty-first year of Elizabeth.'

To the consideration of Windsor and its Castle, nearly eighty pages are devoted; and the Marquis of Buckingham's celebrated seat at Stowe is illustrated by a full and amusing detail.

Volume II. comprehends the counties of Cambridge, Chester, and Cornwall, and supplies an equal stock of rational entertainment with the former. We quote the account

'* Several late writers, particularly Ireland and Ferrar, who have mentioned these circumstances, describe them as happening in the reigns of Charles the Second, James the Second, &c. This mistake throws the imputation of apostacy on the worthy person who held the vicarage towards the conclusion of the 17th century. It should be remarked, that the story was first published by Fuller, in his Church history; and as the author died in the year 1661, it is evident that it must have been circulated previous to that event.'

of

of Cotele, in the last county, because the place is little known and is eminently beautiful, and because we can vouch that the description is accurate:

'Cotele, or Cuttayle House, in the parish of Calstock, is an ancient mansion, which formerly gave the name of Cotele to a family, whose last heiress having married an Edgcumbe upwards of three centuries ago, it has, with the other possessions of the Coteles, devolved to their descendant, the present Earl of Mount Edgcumbe. It is from the "winding vale" of the Tamar, of which his Lordship's seats at this place and at Mount Edgcumbe are regarded as two of the principal ornaments, that his Lordship's title of Viscount Valletort is derived *. Cotele is situated on a bold knoll on the western bank of the river; but it is so surrounded with wood, that the water can only be seen from some of the higher apartments. It is an irregular stone building, inclosing a small quadrangle, the entrance to which is through a square gateway tower on the south. Beyond the buildings which form the north side of the quadrangle, there is a large square tower, in which are the more spacious apartments. The windows towards the east and south are narrow, arched at the top, and darkened with iron gratings; those towards the quadrangle, and those in the north tower, are wide and square. The buildings probably underwent some alterations about the year 1627, as that date appears carved in stone over the gateway.

'This mansion is an object of much curiosity, from the antiquity of the furniture, which is reported to have been of the workmanship of the days of Henry the Eighth and Queen Elizabeth, and to have remained in the house ever since the time of the latter Sovereign. The Hall contains a great collection of ancient armour, arquebusses, pikes, and other implements of war, ranged against the walls in various forms. The horns of a large stag, some elephants' tusks, and the heads of two antelopes, are also preserved here. At one end of the hall is the complete figure of a man, armed cap-a-pee; and in the windows are painted some coats of arms. The chairs are most curiously carved and ornamented.

'The stair-case from the hall leads through a stone door-way into a chamber where Charles the Second slept for some nights. The bed furniture is of oriental workmanship, deeply fringed with various colored silks. In a second bed-chamber is a Saxon sword, about two feet long, and some ancient books; amongst which is a manuscript music-book, with the date 1556. In another apartment, more splendidly furnished, is a rich cabinet; a fine painting of the Adoration, dated 1569; an ancient sopha, covered with embroidery; a pair of ornamented brass dogs, upwards of four feet in height; and several antique ebony chairs, rudely carved. From inscriptions on brass plates on the backs of two of them, it appears that their present Majesties, with the Princess Royal and the Princesses Augusta and Elizabeth, on the 25th of August, 1789, "honoured this old man-

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'* Valletort was once the title of another noble Cornish family, but this has long been extinct.'

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sion with their presence, and condescended to take a breakfast with the Earl and Countess of Mount Edgcumbe."

'Several of the rooms are hung with tapestry; and in one of them, ornamented with the figures of Romulus and Remus, is a singularly antique cabinet, with innumerable figures carved in wood. In another are a great variety of ancient drinking vessels, in glass and earthenware, of the most grotesque forms. The Chapel is small, and was ornamented with painted glass windows, but these are greatly damaged. The altar furniture is extremely rich. On one set is embroidered, in gold, the figure of the prophet Jeremiah; and several coats of arms in gold and purple. Another set is of royal purple velvet, embroidered with gold, and powdered with fleurs-de-lis in silver, and still farther ornamented with the figures of the twelve Apostles in stalls. Over the west end of the chapel is a small turret, surmounted with battlements and pinnacles, and containing two open compartments for bells. Over the east end is a small cross.

'The woods, particularly those between the house and the river, are embellished with some very noble trees. The Spanish chesnuts, in particular, have there attained immense size; spreading out their huge massy limbs, they are scarcely inferior in grandeur to the proudest oaks, and form, amidst the beautiful scenery of rock and wood which overhangs the river, such foregrounds as recall to the recollection the romantic works of Salvator Rosa. At the bottom of one of the grand sweeping hills, whose luxuriant covering embellishes this domain, stands a small Gothic Chapel, situated, with picturesque beauty, upon a little rocky eminence, rising very steeply from the river, and discovering its east end from amongst the trees, which shroud the other parts of the building.

'Upon one of the walls within side is painted the following account of its foundation, extracted from Carew's Survey of Cornwall. "Sir Ric: Edgcumbe was driven to hide himself in those his thicke woods, which overlook the river; what time being suspected of favouring the Earl of Richmond's party against King Richard the Third, hee was hotely pursued, and narrowly searched for, which extremity taught him a sudden policy to put a stone in his cap, and tumble the same into the water, while these rangers were fast at his heels, who looking down after the noyse, and seeing his cap swimming thereon, supposed that he had desperately drowned himself, gave over their farther hunting; and left him liberty to shift away, and ship over into Brittaine; for a grateful remembrance of which deelivery, hee afterwards builded in the place of his lurking a chappel." This in the year 1769 was repaired by George Lord Edgcumbe, his lineal descendant. In the east window is some painted glass, representing the figure of a female saint; St. George and the Dragon; the Crucifixion; and the arms of Edgcumbe. On the altar stands a neat gilt crucifix of wood, and a small image of a bishop in pontificalibus, also in wood. On each side of the altar is an old gothic painting: one represents a female figure, with a book in her hand; the other an angel, holding in his hands a sceptre, on the top of which is a bird. A painted tablet, affixed to one of the side walls, seems to represent a monument of Sir Richard Edgcumbe, the

founder

founder of the chapel, and comptroller of the houshold to King Henry the Seventh, who having been sent to France on a public embassy, appears, by the inscription, to have died in his return at Morlaix, in Brittany, on the 8th day of Sept. 1489; and to have been buried before the high altar of some church in that place. He is here painted as a knight in armour, kneeling on one knee before a desk; his helmit and gauntlets lie by his side: before him stands a bishop of the same design as the wooden figure which is placed on the altar.'

We subjoin the notice of Pentilly Castle, which contains a singular anecdote of one of its former possessors:

'Pentilly Castle, the property of Mr. Coryton, is beautifully situated on the verdant banks of the Tamar, about three miles below Cotele. The declivities towards the river are most luxuriantly wooded, and fine tall elms and limes, picturesque from age, stretch their broad branches over the approach to the mansion, which obtained the appellation of Castle from its embattled form. This, however, is its only point of resemblance, for the building is modern. The back ground of the scenery of Pentilly, when viewed from the river, is a lofty bank, adorned with a tower, with which a singular history is connected. This we shall relate in the very appropriate language of Mr. Gilpin, who has thus narrated the circumstances in his Observations on the Western Parts of England.

"Mr. Tilly, once the owner of Pentilly-House, was a celebrated atheist of the last age. He was a man of wit, and had by rote all the ribaldry and common-place jests against religion and scripture, which are well suited to display pertness and folly, and to unsettle a giddy mind; but are offensive to men of sense, whatever their opinions may be; and are neither intended nor adapted to investigate truth. The brilliancy of Mr. Tilly's wit, however, carried him a degree further than we often meet with in the annals of prophaneness. In general, the witty atheist is satisfied with entertaining his *cotemporaries;* but Mr. Tilly wished to have his sprightliness known to *posterity*. With this view, in ridicule of the resurrection, he obliged his executors to place his dead body, in his usual garb, and in his elbow chair, upon the top of a hill, and to arrange on a table before him, bottles, glasses, pipes, and tobacco. In this situation he ordered himself to be immured in a tower of such dimensions as he prescribed, where he proposed, he said, patiently to wait the event. All this was done; and the tower, still enclosing its tenant, remains as a monument of his impiety and prophaneness. The country people shudder as they go near it.

——"Religio pavidos terrebat agrestes
Dira loci:—sylvam saxumque tremebant."

'The fear-struck hind, with superstitious gaze,
Trembling and pale, th' unhallow'd tomb surveys,
And half expects, while horror chills his breast,
To see the spectre of its impious guest.'

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The account of St. Germain's and of Port Eliot is highly interesting, and appears to us, who are not unacquainted with the spot, to be faithful and just.—The County of Cornwall, which abounds with many curiosities, and is full of beautiful and picturesque imagery, has received from the authors of this publication that minute attention which its importance demanded.

To each volume is subjoined a catalogue of the works which have been principally consulted, and a comprehensive index. The engravings, nearly forty in number, are mostly executed with spirit and taste, and all are above mediocrity.—From the sentiments which we have expressed, and the extracts which we have made, it will be evident to our readers that we think favourably of this performance; and we cannot but wish that the design may be continued.

S.R.

ART. X. *Essays on Agriculture*, with a Plan for the speedy and general Improvement of Land in Great Britain. By Benjamin Bell, F.R.S. Edin. &c. 8vo. pp. 570. 9s. Boards. Bell and Bradfute, Edinburgh; Robinsons, London. 1802.

AGRICULTURAL investigation merits ample encouragement, because it directs the attention of the public mind to the grand source of national prosperity and comfort; and though commerce, in various ways, may benefit states, their stability must ultimately depend on their internal resources. The farmer is employed in a process of incessant creation; the earth becomes prolific in proportion to the skill and energy which are exerted on it; and our first object, as a nation, should be to render ourselves physically independent of other countries, for it is in vain to boast of the advantages of trade while we are continually in danger of famine. The very nature of agriculture intitles it to a superior degree of protection and encouragement, compared with that which should be afforded to commerce; and it is to be lamented that Governments, looking to mere fiscal considerations, are in general more inclined to aid the latter than the former. They consider it, no doubt, as more easy to tax articles of luxury than necessaries of life; and to negociate loans with companies of merchants, who reside together in opulent cities, than with farmers whose necessary habits keep them scattered (as perhaps Mr. Burke would have expressed it) in individuality. We ought, however, to open our eyes and fairly contemplate the evils which must finally be generated by such a system; and the brilliancy of commerce, by which shallow statesmen are miserably fascinated, should not prevent our adverting to its short and transitory glory.

We are as little disposed as the author of the essays before us, to concur with those economists who represent agriculture as the *only* art that merits national encouragement: but we are clearly of opinion with him, 'that it not only deserves *more* than others, but that all arts and manufactures will thrive the more in consequence of the agriculture of the kingdom being fully improved and protected.' We also agree with Mr. Bell that 'those countries only can be said to be prosperous, and secure in the possession of riches, in which, by proper application of the national funds, agriculture is brought to the utmost degree of perfection of which it is capable; by which encouragement is given to a large population, and abundance of the necessaries of life secured for the people; nor, till this take place in Great Britain, are we entitled to say that we are opulent.' In what manner, however, this encouragement ought to be given, we are not prepared authoritatively to decide. Mr. B. in his third essay, on *the Improvement of Agriculture*, suggests the propriety of an extensive system of premiums annually voted by parliament, as the most effectual means of promoting a general spirit of emulation among farmers. He proposes that a large sum should be at the disposal of the Board of Agriculture, and other subordinate provincial Boards; to be dispensed in the form of premiums to those cultivators who shall grow the largest crops of potatoes, corn, &c.; for the best management of farms; for the best and most numerous stock, &c.; or to be advanced as loans without interest, for a period of ten years, to those who should undertake the improvement of such lands as the Board of Agriculture of the county shall judge to be capable of amelioration. For the former purpose, he would annually employ half a million, and for the latter two millions during a given period; in which manner, and according to his idea, at a very moderate expence, all the grounds in the kingdom which are fit for cultivation might be brought into the highest state that they are capable of assuming.

'The effect of large premiums (Mr. B. supposes) would be, to induce farmers to adopt new modes of management, such as the Boards of Agriculture might consider as improvements, but which otherwise would not commonly meet with their attention; for however defective and improper the customs which farmers have followed, are, it has in every country been observed, that they adhere to them with much obstinacy, and are seldom induced to depart from them, if premiums be not actually held forth to them for doing so.

'Under the influence, however, of the best improvers in their various districts, supported by the annual distribution of large premiums, this obstinacy, which, with too much reason perhaps, has been imputed to farmers, would soon probably cease, and give place to

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the desire of rational information and a candid disposition to adopt all useful plans of improvement: but, if the scheme be not from its first outset supplied with ample funds, it would be carried into effect without vigour; no benefit would result from it; and, in the course of a short time, those who at first were induced to engage in it would take no further charge of it.'

As far as the general principle is concerned, we may concur with Mr. B., but we hesitate in going with him to the extent of his plan, and doubt the stability of some of his subsequent maxims. Parliamentary encouragement may be afforded, but a much less annual vote may be requisite than that which this author proposes. It seems necessary, we should say, in the first instance, to provide for augmenting the number of cultivators, by establishing new farms with cottages, labourers, &c. on different wastes in the kingdom; which may be effected by granting sums to the Board of Agriculture for that purpose. By this remark, we are not to be understood as recommending the indiscriminate and universal inclosure of wastes and commons. Some of these are not worth inclosing, and should remain in a state of waste; others, though small, are of essential use to the parishioners, who would suffer from their division and inclosure. There are, however, districts in the kingdom lying waste, which would furnish portions of good land, capable of being converted into valuable farms; and, as the population of the island is increased, and ought to be increasing, it may be wise to enlarge the quantity of good land under the plough, as well as to bring that already inclosed, and which will pay for improving, into a higher state of cultivation. To this measure Mr. Bell is averse. His maxim is;

'Instead of cultivating larger tracts of grounds by improving our wastes and commons, as many have advised, let us do the very reverse, and the best effects will ensue from it.

'We have seen, that our annual consumption of corn is 40,000,000 of quarters, and that 22,500,000 are obtained from 3,000,000 of acres, chiefly from the grounds on which it is sown having long been well cultivated; so that, if only 4,000,000 acres more of the same kind of ground were equally well improved, making the whole 7,000,000 of acres, the effect of it would be fully more than I have stated it: it would raise the average produce of corn upwards of 4,000,000 of quarters above our annual consumption, instead of being 2,000,000 less as it is at present: but, as a considerable time might elapse before the cultivation of these grounds would render them equally productive with the others, a large allowance must be made for this. With this view, I would say, that, as quickly as possible, the whole of our well cultivated lands should be increased to 10,000,000 of acres, and kept in a good productive condition; and were this to be done, and an additional quantity of land improved occasionally, according to the increase that might take place in our

population, we should not often, in future, be distressed with scarcity.

'Here it is proper to observe, that good husbandry not only tends to produce abundant crops in good seasons; but to prevent the influence of bad seasons, both on the quality and the quantity of corn;—a fact of much importance in agriculture. The effect of it, indeed, is such, that, even in our worst seasons, those lands that are fully cultivated usually bear abundant crops of good corn; while fields even of the same kind of soil, and in all other circumstances the same, if they are ill cultivated, not only produce an inferior kind of corn, but seldom more than a third part of their usual quantity. Hence, in seasons of general scarcity, those farmers who have their lands in good condition very commonly become rich, by having large quantities of corn for sale, when prices are high: while others, from their lands not being properly managed, and having little or none to bring to market, derive no benefit from the highest prices that are given.'

It is certainly a good principle generally to recommend the improvement of land already under cultivation, in preference to reclaiming wastes: but, in many instances, the reverse will be found true; and districts may be pointed out, now in a state of neglect, which would better repay the husbandman's labour, than much of those which he at present ploughs and sows. It is scarcely possible so to improve some tracks of poor soil as to make them very fertile; it is more prudent, therefore, to let these fall into waste, and to employ the national funds (if national funds are to be employed) on spots naturally more prolific. However, as it is a matter from which no evil and some good may arise, would it not be advisable to allow the Board of Agriculture to make the experiment of creating a few entirely new farms, in some chosen spots of the royal forests? This plan would not interfere with the amelioration of land already appropriated, and would furnish clear additions to the productive energies of the kingdom. The farms might answer the purpose of experiment, and their produce might go to the use of the Royal Navy.

Where Commons belong to parishes and public bodies, the inclosure of them should be directed on principles of public utility, and not of private rapacity. The privileges of the poor ought to be respected; and the advantages which they enjoy in one way, if taken from them, should be compensated in another. In short, without attempting specific details, we should rejoice to see the attention of the government seriously and perseveringly directed to the agricultural improvement of the country. That Minister who should make it his chief pride "to open paradise in the wild," to cover land now lying waste (which ought not to be so) with rich harvests, and "to make two blades of grass grow where only one grew before," would deserve

deserve a statue of gold. Then, from a full discussion of national improvement, by men most qualified to give an opinion on this subject, wise plans would result, and full power would be afforded for carrying them into the most complete effect. Then, the rage, which for a long time has prevailed for too extensive manufactures, might be lessened; and that effect which the health and virtue of the people seem to require, the united employments of manufacturer and agriculturist, might in some measure be accomplished. Mr. Bell's remarks on this head are so judicious, that we shall make no apology for placing them before the reader:

'Some, indeed, have imagined, that this ought not to be done, being of opinion that the two employments must be carried on to greater perfection when divided, than they can possibly be by one person. But while in one view this opinion is well founded, in others it certainly is not. A manufacturer would no doubt be unfit to manage a large farm; but it does not appear how in any way he could be hurt by having the charge of a garden, or even of an acre or two; which would commonly be all kept in grass for his cow, excepting such parts of it as he might wish to work with the spade for the production of potatoes and other articles usually obtained from gardens. Even this occasional occupation with the spade, however, would, in the opinion of many, prove injurious to manufacturers, from their being afraid that it would occupy time which otherwise might be employed with more benefit to himself and to the public. But men who argue in this manner, build their opinion on speculation, and not on practice and observation. They do not consider the nature of man, who must have some variety in his pursuits, otherwise he will be unhappy; and we all know how unproductive that labour must be, while those by whom it is carried on are discontented, or not satisfied with their situation. It appears indeed to be unreasonable, to insist on a weaver spending every instant of time at his loom, or a smith at his anvil: accordingly it is seldom or never done; for this class of men, when deprived of the more rational occupation of working and taking charge of a small portion of ground, for the benefit of their families, seldom fail to spend a considerable part of their time in the alehouse, and not more than a few days of every week at their work. Whereas, it is almost every where remarked, that this seldom happens with any of those manufacturers who have not hitherto been collected together, but working separately, and often at a distance from each other, frequently possess an acre or two of ground, in the management of which they not only derive amusement and happiness, but they and their children, while employed in this manner, become more robust and healthy, and imbibe much more virtuous principles, than are commonly met with among those manufacturers who do not enjoy this advantage.

'The influence of this is very remarkable in the difference which, in these circumstances takes place, between cotton manufacturers, who in general are collected together in great numbers, often to the extent of more than a thousand, and those who carry on the manufacture of

our national broad-cloth. These last almost every where work separately and unconnected with each other, and employ all the hours which they devote to relaxation and amusement, in the care of their gardens and other small portions of ground that they possess; to which they and their families become commonly so much attached, that they have been known to remain in them, small as their possessions commonly are, for many generations. Nor does this variety of occupation make them worse tradesmen, or induce them to work less, as some speculative men have supposed it would do, while, in various ways, it tends to make them more virtuous citizens. These manufacturers are every where noted for their industry, and for the quantity of cloth which they produce; and we all know that the article itself, which has long been considered as the staple commodity of our country, is the best of its kind that any where can be met with.

'Some manufactures necessarily require the united labours of many workmen; but this is not frequent, nor do we know of any that absolutely require such numbers to be employed in one body as to prevent the possibility of their being all supplied with small portions of ground. It may be for the interest of a few large money-proprietors, to collect manufacturers in great numbers together, and thus to enjoy the profits of their accumulated labour; but this being highly detrimental both to the morals and health of those whom they employ, and being thereby injurious to the whole nation, it is surely full time that to the very extensive length to which undertakings of this kind are frequently carried, some check or regulation should be applied.

'The most desirable, and perhaps the most effectual mode of doing this, would be, for the Board of Agriculture, when possessed of powers and funds sufficient for the purpose, to establish and support a plan for giving to every manufacturer, in all districts that admit of it, one, two, or more acres of ground, according to the richness of the soil, and other circumstances of his situation. The desire which universally prevails among the lower classes of people for this kind of possession, being every where great, were a plan of this kind to take place, a great proportion of manufacturers who are now collected in large bodies, would separate, and become more industrious, more useful, and better members of society, than they are ever likely to be while their present mode of life is pursued.'

Mr. B. suggests the propriety of assigning portions of land to every clergyman in the kingdom:

'In Scotland (he says) this forms part of the legal establishment of the clergy, and the benefit that ensues from it is very considerable. It not only affords to them and their families many of the necessaries and comforts of life, which otherwise they would often find it difficult to procure, such as an ample garden, pasture for two or three cows, as well as for a horse, but very commonly a sufficiency of bread-corn and potatoes; by which, with a moderate allowance in money, they are enabled to live in a state of independence and respectability seldom to be met with among the clergy of any other country.

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'This also enables them to prove more useful among their parishioners, than otherwise could be the case; and as the possession of a portion of land serves often to attract their attention to agriculture, we frequently find them giving good examples in farming in their various districts.

'In no other manner does it appear that the clergy of a country can be so easily and so well supported; and the quantity of land that it requires is by no means considerable. In rich soils, twelve or thirteen acres might be sufficient for all the purposes that I have mentioned; while, in others, twenty-five or thirty acres are necessary. If in Scotland, the average quantity were twenty acres, which, however, it is not, the amount for the whole kingdom would not greatly exceed fourteen thousand acres, as the number of parishes in country districts is not much above seven hundred; and if an allowance of the same extent were made to every curate and vicar doing the duty of country parishes in England and Wales, the whole would not require above 120,000 acres, as the number of country parishes in both does not appear to exceed six thousand.'

In the fourth Essay, *on Scarcity of Provisions and Dearth*, are some observations which well merit the attention of the public, as being calculated to shew the real cause of scarcity, and to rectify the erroneous prejudices of the community in dear times against farmers, who are considered, if not as creating, at least as aggravating the calamity. The author also illustrates the true policy which ought to be pursued by Government with respect to provisions. He is of opinion that rich farmers are a national blessing; and he thus resists the apprehension of their having too great an influence over the market:

'It does not appear that the opulence of farmers gives them the power of withholding their articles from markets, however well they might be inclined to do so. It is so much for the interest of farmers that their crops of corn, and every article of stock in which they deal, be abundant, that none who are rightly informed can doubt of their doing every thing in their power to accomplish what all of them must earnestly desire. Now, on the supposition of this being done, and that large quantities of corn and live stock are produced, in what manner can farmers dispose of them? Farmers, whether they are rich or poor, do with their produce, precisely what merchants do with their wine, tea, coffee, and sugar, as well as with every article in which they deal. They sell it as quickly as possible; and it is so much for their interest to do so, that the public has no real cause to be afraid of being injured by farmers acting with different views of this matter.

'When abundant crops are produced, farmers are obliged to dispose of them at low prices; for the value of corn, like that of every other article, must be chiefly regulated by the quantity in the market. In years of scarcity, therefore, they necessarily raise their prices, otherwise they would soon be reduced to extreme poverty; for al-

though farmers, as I have already observed, always gain most in years of abundance, their profit on corn is, even in the best seasons, so small, that were they not permitted to increase their prices when scarcity takes place, and when they have only small quantities to dispose of, in what manner is it possible that their business could be carried on? It seems, however, to be the desire and expectation of many, that in all seasons, farmers should sell their corn at nearly the same value, whatever the quantity may be! A desire so unreasonable, that it cannot easily be accounted for or explained.'

Mr. Bell is decided in reprobating all restrictions on dealers in provisions. To encourage abundance, he advises a very simple plan:

'Let every statute be repealed that has hitherto been continued against dealers in corn, and other provisions: let all who deal in them be protected, and permitted to purchase and sell in all situations and circumstances, and whenever they may think proper; and the business will be done. When this shall happen, and the period is not probably distant, it will soon become matter of surprise and wonder, that any of these pernicious statutes were continued till the nineteenth century. They will be considered as the more remarkable, from being kept in force by the people of Britain, who have long been convinced of the utility of freedom of trade in every other article; and hereafter will be spoken of in the same manner with all statutes that authorise persecution, where full liberty should be given.'

On the subject of the proper size of farms, this author asserts that 'it is for the interest of the public, greatly for the comfort of farmers, and very beneficial for the poor, that full encouragement be given to farms of considerable size;' and that all the labouring cottagers should be possessed of small portions of land for the use of their families. Large farms indeed produce quantities for the market; while small farms are most favourable to population.

A distinct section is employed in discussing the operation of Country-Banks; and it is maintained that 'they prove useful to agriculture, and thereby tend to lessen rather than to raise the prices of produce.' In many respects, Country-Banks afford an accommodation to Agriculturists; and, as they assist greatly in giving stability to our paper currency, they ought not to be abolished: but, as they unavoidably help to increase the quantity of the circulating medium, they must operate, together with the National Bank, in raising the nominal value of provisions and other articles.

We have already mentioned that Mr. Bell, among the means of preventing future scarcity, does not recommend an increase of the quantity of ploughed lands, and opposes the cultivation of wastes as an injurious measure; though, strange to say, he would have commons divided, because, till this is done, he asserts,

asserts, 'they cannot any way be occupied to advantage:' but if the welfare of the nation does not require them to be subjected to the operations of agriculture, why divide them? why expend any of the national capital on them? It is maintained that it is for the national interest to lessen the quantity of corn land, which is here said to be already three times more than it necessarily should be. We possess, according to the statement before us, 27,000,000 of acres of arable land; and the full cultivation of 10,000,000 is represented as adequate to provide more than sufficient for our consumption. Mr. Bell's opinion, in this respect, will be combated; at all events, it merits a full discussion.

The first two essays in this volume belong rather to the class of Political Arithmetic than to Agriculture; in them, Mr. B. treats of *the Taxation of Income, of the National Debt, of the Funds, and of the Sale of the Land Tax.* To an Income tax he is extremely partial; and he thinks that, if such a tax were instituted, it ought to include all incomes, from the largest down to those of 15 l. per annum; though the assessments should not be on the same scale of proportion. There is truth in the following observation, that, 'by collecting the revenue of the kingdom in one article, making every person pay a certain proportion of his clear income, instead of taxing every article in common use, as is done at present, the whole might be managed with much less expence than is now paid for a single branch of it.' By experience, however, it has been found that the demand of the disclosure of income is so odious and irritating, and that opportunities of evasion are so numerous, that few persons wish for the revival of this tax in any shape. It is very difficult, also, to levy it with equality.—The amount of the National Income is reckoned at 243,000,000, which is probably much too high.—For instance; the whole amount of the income from land is taken at its utmost estimate, and to this is added the whole of the mortgage capital: now it is admitted by Mr. B., that a great proportion of men of landed property *are in debt*, and the amount of the interest paid on the sum total borrowed must be subtracted from their incomes. The amount of the interest on the mortgage capital must be taken from, not added to, the landed income.—Mr. Bell appears to be actuated by the purest motives: but we are surprised that he should labour to exhibit an exaggerated statement of our wealth; for what benefit can accrue from encouraging national vanity, or from inviting a minister into the dangerous paths of excessive taxation?

Mr. Bell's doctrine on the Funding System is that it will be the gulf of our national wealth and prosperity, as long as it

is permitted to exist; that, so far from our flourishing state having any dependence on the high price of the Funds, we shall thrive in proportion as their price is low; and that we ought to make every effort for the speedy liquidation of the National Debt. His opinion of the Act for the Sale of the Land-Tax may be collected from a short passage:

'Instead of calling upon the proprietors of land to purchase their land-tax, or expecting others to do it, this tax ought, in equity, to be at once annihilated, and income from land be put upon the same footing with income from any other source. Were this to be done, there is reason to believe, that it would be productive of more public benefit than will ever probably arise from the plan which Government appears at present willing to promote for it.'

It can be the interest of none but proprietors to become purchasers.

Many sensible observations occur in this volume: but it is diffusely written; for which Mr. B. apologizes, like the parson for his long sermon, by saying that he had not time to make it shorter. The public may expect a continuation of this gentleman's agricultural remarks.

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Art. XI. *An Appendix to the Guide to the Church* *: In which the Principles advanced in that Work are more fully maintained; in Answer to Objections brought against them by Sir Richard Hill, Bart., in his Letters addressed to the Author, under the Title of "An Apology for Brotherly Love."† By the Rev. Charles Daubeny, LL. B. 2 Vols. 8vo. 10s. 6d. Boards. Hatchard, &c.

Art. XII. *Reformation-Truth restored:* Being a Reply to the Rev. Charles Daubeny's Appendix to his Guide to the Church. Demonstrating his own Inconsistency with himself; and his great Misrepresentation of some historic Facts. With a particular Vindication of the Pure, Reformed, Episcopal Church of England, from the Charges of Mr. Daubeny, and other doctrinal Dissenters of that Gentleman's Sect, who are fomenting Schisms and Divisions, and disseminating Errors, in the very Bosom of the Establishment. In a Series of Letters to Mr. Daubeny. By Sir Richard Hill, Bart., M. P. 8vo. 4s. Boards. Cadell and Davies.

Perhaps Sir Richard Hill is not far from the truth, when he conjectures that few excepting the Reviewers will peruse this unprofitable controversy. "*We have, alas! toiled more than one long night, and have caught nothing*;" we mean nothing new, nothing which throws any additional light on the subjects in

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* See M. Rev. N. S. Vol. xxviii. p. 234.

† Ibid. Vol. xxix. p. 94.

debate,

debate, or which leads to any decisive conclusion. It is rather amusing, however, to see with what assurance of success each combatant prepares to attack his adversary, and with what eagerness and mutual (gentlemanly) tauntings they hasten to measure lances with each other. Both Knights profess the warmest attachment to the same Lady, while each upbraids the other for deserting her. What can we do in this case? As umpires, must we let them fight on, and then divide the palm? The Clergyman accuses the Baronet of being a Dissenter from the Established Church with regard to Discipline; and the Baronet pronounces the Clergyman to be a Dissenter in point of Doctrine. Mr. Daubeny *unchurches* all societies of Christians who are not episcopally governed; and Sir Richard Hill will not allow those to be true Church of England Clergymen who do not preach up Calvinism. We cannot entirely agree with either of these gentlemen. The Baronet, in his account of Church Government, appears to have the advantage over the Clergyman, especially if the appeal be made to the evidence of Scripture, and to the practice of the primitive church: but, when he proceeds to discuss the doctrines of Grace, Free Will, &c. he loses his superiority, by endeavouring to uphold doctrines which are less in unison with the general tenor of the New Testament than those of Mr. Daubeny.

It is contended by Mr. D., in the first part of his Appendix, that 'Episcopal Government is necessary to the existence of a Christian Church;' whence it follows, as a necessary corollary, that the Church of Geneva, the Presbyterian Church of Scotland, and the Dissenting Congregations, are not true churches. To establish this position, an appeal is made to the history of the early ages of the Church, in order to prove that nothing was thought to be legally done without the authority of the Bishop; and that there existed among the primitive Christian Clergy three distinct orders, Bishops, Priests, and Deacons. Unfortunately, however, for his grand hypothesis, he is forced to confess that 'it may be somewhat difficult at this day to ascertain the precise meaning of the different titles of Bishop, Priest, and Deacon in every passage in which they occur.' By this concession, the basis of his fabric is completely subverted; for, if it appears (as it unquestionably does) that a Presbyter in the primitive Church had often the same order and power with the Bishop, his whole argument, by which he would turn such multitudes out of the Christian Church, falls to the ground. As this is a species of reasoning which we should not have expected in any scholar of the present day, and least of all in a minister of the Protestant Church, we must not suffer it to pass without farther observation.

Does

Does Mr. Daubeny need to be informed that the word επισκοπος, on which he lays such stress, is a civil term, employed by the Greek classic writers to signify a person who *alicui rei curandæ præfectus est*; and that it was adopted by the writers of the N. T. and the primitive Christians to express the office of overseership, or presidency, in the society of believers which was formed in any place for the purposes of piety, fellowship, and communion? Can Mr. D. be ignorant that the original sense of επισκοπος, in the age of the apostles, was not exactly commensurate with the modern signification of the word *Bishop*, by which it is generally translated? The chief ministers of every church, or congregation of Christians for social worship, were denominated επισκοποι, or *overseers*, as the word is translated in our version of the N. T., Acts xx. 28.; and the author of *the Inquiry into the Constitution, Discipline, &c. of the Primitive Church, which flourished within the first three hundred years after Christ*, observes, p. 54. that "what we generally render Bishops, Priests, and Deacons, would be more intelligible in our tongue, if we did express it by Rectors, Vicars, and Deacons; the former being the actual incumbents of a place, and the latter Curates or assistants, and so different in degree, but yet equal in order." Mr. D., with a weakness of argument which, for the credit of his understanding and liberality, we wish him to relinquish, urges the necessity of having an officer named *Bishop* in every society or convention of Christians, in order to constitute that society a Church; as if επισκοπος and *Bishop* were convertible terms, and the sense of the former could be expressed only by the latter. The fact is that the heads or rulers of every Christian society answer to the antient επισκοποι, whatever modern appellations they may assume; and that the Presbytery of Scotland, the Calvinists at Geneva, and all the societies of Separatists, are *as much* Christian Churches as the Church of Rome.

When Mr. D. makes the validity of ordination to rest on an uninterrupted succession of Bishops, we are disposed rather to smile at his credulity than to offer a serious reply. Where is the necessity of this succession stated, and how can it be proved? On this occasion, we shall spare our own remarks, and oppose to Mr. D.'s regular succession the remarks of Sir R. Hill:

'When I consider the perpetual disagreements and bickerings which subsisted in the first ages of the Church, and how often the different bishops were deposed, and others ordained in their stead, so that not unfrequently there were two, three, or more nominal bishops appointed over the same district; I say, when all this is duly considered, as well as the darkness of those times, and the dreadful confusion

fusion occasioned under the different persecutions; we shall certainly find no small difficulty in tracing up a regular succession of diocesan bishops from the present time to that of the apostles; though you inform us that you have seen a regular gradation of the bishops of London from the much esteemed character who now so worthily fills that see, up to the first establishment of Christianity in this nation; which, however, according to Mr. Pennant's History of London, must (I think) have been before the city itself existed. However, not to dispute this matter, I can also assure you that I myself have seen a list or *string* of popes in the Church of St. Mary Maggiore at Rome, beginning with St. Peter, and carried down to his late holiness, Pius the VIth, for whose portrait there is only one niche left; [a sad omen that he will be the last;] but fortunately, or unfortunately, poor Madam Pope Joan (whom Mr. D. believes to have been delivered of a bastard whilst she was walking in solemn procession) has no place among her brethren of the Tiara; by which means the succession is interrupted, and the infallibility of the papal chair liable to be disputed.'

Much as we lament divisions among Christians, and earnest as we are to promote union with rather than hasty separations from the Established Church, we cannot, for the sake of advancing any fancied unanimity, relinquish the great principle of religious liberty. Mr. D. evinces a commendable zeal in behalf of the Protestant Church of which he is a minister, and laments that congregations of Separatists have broken away from the Church of England: but he seems to forget that the Church of Rome is not less severe in its charge of schism against the Church of England; and that the only principle, which can be adduced in support of the Reformation and our secession from the Church of Rome, will justify those who allege conscience in excuse for farther separations *. A multitude of sects is a great evil, but it is preferable to spiritual tyranny erected on a pretended infallibility. We entirely agree with Mr. D. that 'The Kingdom of Christ is not of this world,—and the less the concerns of this world are mixed up with it the better:' for from such a mixture arises much of the arrogance and illiberality existing among Christians.

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* Mr. D. (Vol. ii. p. 434.) offers the following curious argument: 'For, as the Church of Christ is but *one*, there cannot be two separate communions in it, without *schism*: and the schism lies on the side of that party which separates; for to separate from a Church established by public authority, which has nothing sinful in its communion, is both disobedience to the supreme authority in the State, and a *schism* from the true Church.'—How would a Papist turn this artillery against the Protestant Presbyter?

We

We shall not here state our opinion whether the XXXIX Articles be Arminian or Calvinistic: but we must say that Mr. D.'s view of Christian doctrine appears to us preferable to that which is given by Sir R. Hill in his reply. Mr. D. says,

'The notion of absolute unconditional salvation, independent of human conduct, exists no where but in the heads of Calvinists. God deals with man as a rational creature; and he will judge him as such. He sets life and death before him, and furnishes him with the means of grace, to enable him to make a proper choice. Should he act wisely, he will receive the reward of his promised inheritance, through the merits of a crucified Saviour: should the gifts of divine grace, by which he may be enabled to work out his salvation, be thrown away upon him; he will stand condemned for the neglect. To such a man, there remains only a fearful looking-for of judgment. Such is the Gospel plan of salvation: I am much mistaken, if in the Bible you can find any other. *The favour of God is there described, as waiting on the actions of men*; and, from the plain letter of Scripture, it is to be proved, that man may be one day an heir of God, and the next day a child of wrath, according to his use or abuse of divine grace.'

This doctrine is not to be tolerated by Sir Richard; who maintains the sovereignty of the divine decrees, the *invincibility* of divine grace, and the impossibility of the final falling of the elect. He contends for 'a particular Providence, decreeing, planning, guiding every event, whether good or evil; and this, without the smallest impeachment of God's own moral attributes, or *even without his having any thing to do with the sin*, so far as the act itself is sinful, but as it makes way for the greatest good, in the manifestation of his own glory, and the display of his own infinite perfections.'—If, as he remarks, the command and the power go hand in hand, how can the evil actions of men be necessitated, and the Deity have nothing to do with the sin?

Sir Richard makes a distinction between *quenching* and extinguishing the Spirit; and he thinks that men may act *necessarily* and yet *freely*. To retort the accusation on some of our Divines, that they fished in the Lake of Geneva, he accuses his clerical opponent of fishing in the Tiber. Thus wit is blended with divinity; and if these controversialists do not *convince*, perhaps they have not failed in their attempts to *amuse* one another.

Some other publications on this subject will be found in our *Catalogue*.

Moy.

ART. XIII. *Philosophical Transactions of the Royal Society of London*, for the Year 1802. Part II. 4to. 17s. 6d. sewed. Nicol.

ASTRONOMICAL *and* MATHEMATICAL PAPERS, &c.

Observations on the two lately discovered Celestial Bodies. *By* William Herschell, *LL. D. F. R. S.*

THE surprize of the scientific world on the discovery of two new planets has now subsided: but its curiosity must naturally be awakened by an account of the nature of these stars, from the pen of that astronomer who discovered the *Georgium Sidus* and the Satellites of Saturn. Such remarks are contained in the present paper; which is drawn up in the manner of a journal, in order that every circumstance, however minute, might be noticed in a case so important. Our concern is with results only; and the first result of Dr. H.'s observations is that the diameter of Ceres (Piazzi's Star) is 161.6 miles, and that of Pallas (Dr. Olber's Star) 110½ only. After the journal of the investigations by which the diameters of the new planets are determined, follow observations made with the view of ascertaining whether they had *comas* and satellites; and it appears that the new planets have the former but not the latter. The comas, much less than those which comets have, extend two or three diameters from the disk.

Beyond these points, Dr. H.'s paper seems to have but little interest for the curious inquirer. The remaining part of it is principally occupied with the discussion of this (at best) *idle* question, 'Are the new stars, planets or comets?' and, as if the word *planet* contained an inherent and necessary signification, the Doctor lays down six conditions to which a star must be subject, in order to be intitled to that appellation. What person, in any degree imbued with astronomical science, having learnt that these new stars agreed with Venus, Mars, Mercury, &c. in the great circumstance of revolving round the sun, would have hesitated one moment in calling them *planets?* The reasons which Dr. H. alleges, to prove that Pallas and Ceres are *not planets*, are not more philosophical, and they are much less amusing, than those by which Scrub proves the existence of a plot. "Ay, Sir, a plot, a horrid plot.—First, it must be a plot because there's a woman in't; secondly, it must be a plot because there's a priest in't; thirdly, it must be a plot because there's French gold in't; and fourthly, it must be a plot, because I *don't know what to make on't.*" (*Beaux Stratagem.*)

Having excluded the new stars from the rank of planets, Dr. H. more easily shews that they cannot be called *comets*:—but, in this age of nomenclatures, are the new stars to be without

a name? By no means; Dr. H. gives them the name of *Asteroïds;* and, in order to know what an *Asteroïd* means, we are referred to a definition. Would it not have been more simple to have called them *Planets?* The peculiar circumstances by which they differ from the other planets might easily have been remembered without a *definition*; and an evil attached to Dr. H.'s definition is, that it does not exactly describe the nature of the two new stars.

We are decidedly adverse to this unnecessary invention of new names. The *journal* method of Dr. H.'s paper, also, we do not much approve: we cannot perceive its utility, and the cause of it is at least ambiguous: it might originate from indolence; and it might be suggested by a real and enlightened concern for the interests of science.—It is with reluctance that we animadvert on a philosopher, who has so many and such strong claims on our respect.

A Method of examining Refractive and Dispersive Powers, by Prismatic Reflection. By William Hyde Wollaston, *M. D. F.R.S.*—The very ingenious method, a description of which forms the subject of this paper, was suggested to the author, according to his own declaration, by a consideration of Newton's prismatic eye-glass; the principle of which depends on the reflection of light at the inner surface of a dense refracting medium. The principle of Dr. W.'s method is nearly as follows: If a ray pass out of one medium into a rarer; then, by increasing the angle of incidence in the denser medium to a certain extent, the ray is at length reflected, and the object ceases to be seen by refraction. Now the angle of incidence, at which this reflection takes place, depends on the difference of the densities of the mediums. Take, then, a prism, of which the refracting power is known, and the refracting power of a rarer medium may be ascertained by viewing in it an object through the prism, just at the point where the visual ray is about to be reflected, or no longer refracted.—Setting out on this foundation, Dr. W. has constructed a very simple instrument; which, used with a square prism, determines at once the refractive power of the medium placed in contact with the prism. With a diagram, the construction of the instrument may be very easily understood.

The mode by which Dr. W. examines the refractive powers of mediums and substances, besides its facility, has advantages above the ordinary methods. It has enabled him to determine the refractive powers of perfectly opaque substances, and those of mediums which have a variable density. He suggests that it may be useful in examining the purity of essential oils; and he

shews that the method for ascertaining refractive powers may be commodiously employed in determining the dispersion of light caused by different bodies.

The reasonings and contrivances of Dr. W., designed to ascertain the refractive and dispersive powers of substances, have afforded us much pleasure and instruction: but a passage towards the latter end of his paper excited our surprize. He affirms that a beam of white light is separable by refraction into *four* colours: the fact is remarkable, and for several reasons highly interesting: yet the following extract contains almost the entire proof of it that the author has given:

'I cannot conclude these observations on dispersion, without remarking that the colours into which a beam of white light is separable by refraction, appear to me to be neither 7, as they usually are seen in the rainbow, nor reducible by any means (that I can find) to 3, as some persons have conceived; but that, by employing a very narrow pencil of light, 4 primary divisions of the prismatic spectrum may be seen, with a degree of distinctness that, I believe, has not been described nor observed before.

'If a beam of day-light be admitted into a dark room by a crevice $\frac{1}{20}$ of an inch broad, and received by the eye at the distance of 10 or 12 feet, through a prism of flint glass, *free from veins*, held near the eye, the beam is seen to be separated into the four following colours only, red, yellowish green, blue, and violet.'—

'The position of the prism in which the colours are most clearly divided, is when the incident light makes about equal angles with two of its sides. I then found that the spaces AB, BC, CD, DE, occupied by them, were nearly as the numbers 16, 23, 36, 25.

'Since the proportions of these colours to each other have been supposed by Dr. Blair to vary according to the medium by which they are produced, I have compared with this appearance, the coloured images caused by prismatic vessels containing substances supposed by him to differ most in this respect, such as strong but colourless nitric acid, rectified oil of turpentine, very pale oil of sassafras, and Canada balsam, also nearly colourless. With each of these, I have found the same arrangement of these 4 colours, and in similar positions of the prisms, as nearly as I could judge, the same proportions of them.'

We do not think that the mere result of this experiment satisfactorily establishes the fact just stated.

On the Oblique Refraction of Iceland Crystal. By William Hyde Wollaston, *M.D. F.R.S.*—According to the hypothesis of Huygens, light proceeding from a luminous centre is propagated by vibrations of an highly elastic fluid. In common cases, the incipient undulations are supposed to be spherical: but in the Iceland crystal, light appeared to that philosopher

to

to proceed as if the undulations were portions of an oblate spheroïd, of which the axis is parallel to the short diagonal of an equilateral piece of the crystal, and its centre the point of incidence of the ray.

From the spheroïdical form of the undulations, Huygens deduced the obliquity of refraction; and, whereas in other cases the ratio of the sine of incidence to the sine of refraction (or ordinate of the spherical undulation) is given, so in the Iceland crystal, he affirms the ratio to be given between the sine of incidence and ordinate of refraction, in any one section of the spheroïdical undulation.

The method described in Dr. Wollaston's former paper, of determining the refractive powers of different substances, enabled him to ascertain the truth of Huygens' hypothesis, as far as the results from it corresponded with observation. The contents of this second essay agree throughout with the theory of Huygens; and the author says that they are the more worthy of dependence, because nearly all the experiments were made previously to an acquaintance with the theory, which in a great degree they now confirm. These two excellent memoirs will be read with interest by the philosophical inquirer.

An Account of some Cases of the Production of Colours, not hitherto described. By Thomas Young, *M.D. F.R.S.*—As this paper is short, those persons who are interested in the subject will do well to read it; and if they find nothing satisfactory in it, the time lost will not be very important. For ourselves, we do not apprehend with sufficient distinctness the phænomena described, and their explanation according to the undulatory theory, so as to make them the subject of critical examination. We wish that Dr. Young would have some regard to us, who have not abundance of leisure time, and would write more clearly: for we cannot linger over books, and perplex our brains, to divine and conjecture the probable meaning of authors.

Quelques Remarques sur la Chaleur, et sur l'Action des Corps qui l'interceptent. Par P. Prevost, *Professeur de Philosophie à Genève, &c. Communicated by* Thomas Young, *M.D.*—The first part of this paper is principally confined to the examination of the method by which Dr. Herschell estimates the intercepting power of different mediums, when heat is transmitted through them. By that mode*, if two thermometers at 67° were raised in the space of 5 minutes, the one by the immediate action of the rays of heat to 73°, the other by the action

* See Dr. Herschell's Experiments, Phil. Trans. 1800.

of

of like rays transmitted through a medium to $71\frac{1}{2}°$, then the intercepting power of the medium is

$$\frac{(73-67)-(71\frac{1}{2}-67)}{73-67} \text{ or } \frac{6-4.5}{6} \text{ or } \frac{1.5}{6} \text{ or } .25$$

Now, if this method were a just one, the same result ought to arise if we estimated the intercepting power by observing the heights of the thermometers at the end of 4, or 3, or 2, or at the end of 6, 7 or 8, &c. minutes: but this is not the case; for, according to Dr. Herschell's own experiments, if we take four minutes, the intercepting power is .28; and if 3 minutes, the intercepting power is .314. Since the intercepting power, estimated by Dr. H.'s principle from these experiments, decreases the longer the thermometers are exposed, what can be the just means of estimating it? For why should we stop at 5 minutes, rather than at 4, or 15, or 100?

In order to examine Dr. H.'s method farther, M. Prevost takes the law laid down from experiments by MM. Kraft and Richmann; according to which, a body in a medium of constant temperature is heated, or cools, in such a manner that the differences between its heat and that of the medium are in geometric progression, while the times are in arithmetical. As a consequence of this law, M. Prevost observes that, if two bodies of the same temperature are plunged into two media, of constant but different temperatures, the increases of heat in equal times will not, generally, be proportional to the temperature of those media; and therefore, the two thermometers (stated in Dr. H.'s experiments) by the ratio of their movements in 5 minutes, will not indicate the ratio of the whole heat, to the heat transmitted through the interposed lamina.

Professor Prevost thinks that the best means of ascertaining the intercepting power of media would be by observing the instantaneous effect, and not the effect after a given time.—In page 432, the phænomenon of a metallic speculum, reflecting rays of heat much more abundantly than a similar glass speculum coated at its hinder surface, is said to have been observed and explained by M. Pictet: M. Scheele, however, unless we greatly mistake, was the first person who observed this phænomenon.

Again, a piece of glass interposed between the fire and face intercepts, until it becomes *saturated*, the rays of caloric: and the observation of this fact, M. Prevost ought, in our opinion, to have acknowleged to be due to Professor Robīsōn of Edinburgh.

Again, the merit of the experiment of *reflecting cold* from a speculum is given to M. Pictet; whereas, as we have shewn,

(M. R. vol. xxxvi. N. S. p. 420.) the experiment was tried, nearly 140 years ago, by the Academy del Cimento.

The memoir of M. Prevost certainly deserves notice; yet he has rather shewn that Dr. H.'s method of measuring the intercepting power of substances is fallible, than that this or that method ought to be adopted. The learned Professor might also have stated his opinions in fewer words.

On the Rectification of the Conic Sections.—By the Rev. John Hellins, *B.D. F.R.S. Part* 1. *Of the Rectification of the Hyperbola; containing several new Series for that Purpose: together with the Methods of computing the constant Quantities by which the ascending Series differ from the descending ones.*—The subject of this paper was first offered to the author's consideration in the year 1770. A problem suggested in a periodical work required the rectification of a considerable portion of the equilateral hyperbola; and Mr. Hellins exhibited the rectification, an early blossom of his ingenuity. During a period of nearly thirty years, he has resumed the subject at different times; and, in the maturity of his judgment, he now instructs the present race of Geometricians how to compute the length of any portion of a conic hyperbola.

We wish not to speak in that flippant tone, by which mathematical inquiries of all kinds are condemned: but, in the present instance, Mr. Hellins has employed much time innocently perhaps to himself, yet uselessly to science. He has exhibited nothing curious in a speculative point of view, nor has he abridged the labour of actual computation. We are surprized that he should not be aware, (which he seems not to be,) that the rectification of the hyperbola * depends on that of the ellipse, or that every arc of an hyperbola may immediately be rectified by two arcs of an ellipse; so that the whole difficulty devolves on the rectification of an ellipse. This latter problem, however, is not now regarded as difficult; the common series for the rectification of an ellipse converges very fast when the excentricity is small; and, by means of the arcs of two ellipses very little excentric, we can determine the arc of any ellipse whatever; as also by means of the arcs of two ellipses very excentrical. These remarkable properties of the ellipse and hyperbola are not only highly gratifying to

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* If b be an arc of an hyperbola, and θ its amplitude, then $b = \int \frac{b^2\,\theta\cdot}{\cos.\,\theta^2 \cdot \sqrt{1 - c^2.\sin^2.\theta}}$; and if EE' be two elliptic arcs $b = \text{tang.}\,\theta \sqrt{1 - c^2.\sin^2.\theta} + 2c.\sin.\theta + E - 2(1+c)\,E'$.

the

the merely speculative inquirer, but are of great assistance in computation.

Mr Hellins seems to have heard something of these properties: Landen, he says, wrote a *very ingenious paper* on elliptic and hyperbolic arches; and he afterward adds that he has heard, that '*some improvement* in the rectification of the ellipsis and hyperbola had been produced, and some of the same theorems discovered, by a *learned Italian* many years before Mr. Landen's Mathematical memoirs were published.' We suppose that Mr. H. alludes to Fagnani; and he might also have mentioned a *learned Frenchman*, M. Legendre. In our opinion, before Mr. H. had offered his speculations to the public, respect to that public should have induced him to have consulted all that had been written on the same subject. Had he done this, the pages of the present volume of the Transactions would probably not have been occupied with a paper in which, as we have already observed, neither a curious speculative truth is exhibited, nor the business of computation materially facilitated.

The method of Mr. Hellins chiefly consists in expanding the expression $\dot{x}\sqrt{(1+c^2x^2)}\ (1+x^2)^{-\frac{1}{2}}$, different ways, and in a few simple transformations.

Catalogue of 500 *new Nebulæ, nebulous Stars, planetary Nebulæ, and Clusters of Stars; with Remarks on the Construction of the Heavens. By* William Herschell, *LL.D. F.R.S.*—This learned observer of the heavens has found out many new appearances, so varying from each other, that they require to be classed differently; and if they are classed differently, it may perhaps be said that it is proper to assign them distinct names. To the mere reader and admirer of Dr. H.'s discoveries, however, these names are of no assistance, since they do not point out adequately the nature of the thing designated; and, for *information*, he must attend to the description of *nebulous stars*, *stellar nebulæ*, &c. that is, to the description of certain appearances.

The present paper, notwithstanding some objections that may be urged against it, is well worthy of notice. There is oftentimes much to admire in Dr. H.'s discoveries, and there is always something that excites a smile in his phraseology.

so far
R. W.

Mineralogy, Anatomy, &c.

Description of the Corundum Stone, and its Varieties, commonly known by the Names of Oriental Ruby, Sapphire, &c.; with Observations on some Mineral Substances. By the Count de Bournon, *F.R.S.*—In a former memoir on the same subject *, the author

* See Rev. Vol. xxviii. N. S. p. 267.

gave it as his opinion, that the corundum stone was of the same nature with those stones or gems, which have been hitherto distinguished by the name of oriental.—Since the period at which that paper was presented to the Royal Society, the Count has had various opportunities of confirming the accuracy of this opinion; and he now concludes with confidence, as well from his own numerous observations as from the chemical analysis of Mr. Chenevix, undertaken at his request, (and detailed in a subsequent paper of the present volume,) that corundum ought to be placed among those gems or stones, known by the names of sapphire, oriental ruby, oriental hyacinth, &c.

The Count refers corundums to two divisions; the perfect, which comprises the substances distinguished by the names of sapphire, ruby, &c. and the imperfect, which is confined to that to which the general appellation of corundum has been applied.

'Under one of these appearances, in which it is known by the name of corundum, this substance presents itself either in fragments, or in crystals of a pretty large size; sometimes, indeed, of a very considerable one. The surface of these crystals is generally dull and rough; their texture, which is very much lamellated, is shown to be so by their fracture, which is obtained without much difficulty, as the adherence of their crystalline laminæ to each other is not very strong, and is easily overcome; and the crystal or fragment may always be brought to the rhomboid, its primitive form. Their colour, which is most commonly rather dull, is a whitish, greenish, and sometimes yellowish gray. Specimens of a purplish red, or of a blue colour, have always been extremely rare.'—

'Under the other appearance, (in which this substance is known by the names of sapphire, ruby, &c.) it offers itself, on the contrary, in crystals which are generally of a very small size, and have a smooth and brilliant surface. Their transparency is often very great; and it seldom happens that they are not semi-transparent, in a greater or less degree. They are more difficult to break in the direction of their crystalline laminæ, and this difficulty increases, in proportion to their purity and their brilliancy. Their colours are much more beautiful, more variegated, and more lively.'

The author then describes with great minuteness, and at considerable length, the external characters of the different varieties of oriental gems. Four plates are annexed, for the purpose of illustrating the various forms of their crystals.

Analysis of Corundum, and of some of the Substances which accompany it; with Observations on the Affinities which the Earths have been supposed to have for each other in the humid Way. By Richard Chenevix, *Esq. F.R.S. and M.R.I.A.*—

'The

'The general results, from all the different kinds of corundum, were as follows.

'*Blue perfect Corundum, or Sapphire.*

Silica	5,25
Alumina	92
Iron	1
Loss	1,75
	100,00.

'*Imperfect Corundum from the Carnatic.*

Silica	5
Alumina	91
Iron	1,5
Loss	2,5
	100,0.

'*Red perfect Corundum, or Ruby.*

Silica	7
Alumina	90
Iron	1,2
Loss	1,8
	100,0

'*Imperfect Corundum from Malabar.*

Silica	7
Alumina	86,5
Iron	4
Loss	2,5
	100,0.

'*Imperfect Corundum from China.*

Silica	5,25
Alumina	86,50
Iron	6,50
Loss	1,75
	100,00.

'*Imperfect Corundum from Ava.*

Silica	6,5
Alumina	87,0
Iron	4,5
Loss	2,0
	100,0.

The chief difference between these results, and the proportions established by M. Klaproth, is in the Silica, of which that chemist was unable to detect any portion in the specimens examined by him.

In a subsequent part of his paper, the author gives the analysis of the matrix of corundum from the peninsula of India, and of the different substances contained in this matrix, individually;—and he concludes with some observations and experiments on the affinities which the earths have been supposed to have for each other, in the humid way. The affinity of alumina for magnesia, lime, and silica, he noticed some time ago in the *Annales de Chimie*; and he is still of the same opinion with regard to this subject: but he thinks himself justified, by a careful repetition of the experiments, to infer that M. Guyton was misled by the impurity of his re-agents, in his ideas on the affinities exercised among other earths, and which, if they existed, would have so materially affected the application of Chemistry to Mineralogy.

Description of the Anatomy of the Ornithorhynchus Hystrix. By Everard Home, *Esq. F.R.S.*—This animal is considered by the author as approaching nearer, in the scale of existence, to a perfect quadruped, than the *Ornithorhynchus paradoxus*, which

was described in the first part of this volume *. The subject, from which the present description was taken, was sent from New South Wales preserved in spirits, and was supposed, from the appearances of its epiphyses, to have arrived nearly at its full growth. It is a male, and is classified by Dr. Shaw in his Zoology under the name of *Myrmecophaga aculeata*.

In shape and size, the *hystrix* considerably resembles the *paradoxus*: but, instead of having the same integuments as were noticed in the description of the latter, it is distinguished by a covering of short coarse hair; extending over a large part of its body, and intermixed with quills like those of the porcupine, which are disposed in rows, and are from one to two inches and a half in length.

In the *paradoxus*, besides the teeth which are placed in the jaw at the posterior part of the mouth, there are two pointed teeth growing from the tongue: while, in the *hystrix*, the teeth are intirely confined to the tongue and palate.

'On the posterior part of the tongue, which is thicker and broader than the rest, there is a space, one inch in length and $\frac{3}{4}$ broad, covered with a strong cuticle, and having about 20 small teeth, blunt at their ends, projecting about $\frac{1}{10}$ of an inch; there are also several others, less prominent. On that part of the palate immediately opposite, there are seven transverse rows of very slender horny teeth, with their points directed backwards; each row looks somewhat like a small-toothed comb, laid flat upon the palate.'

The internal parts of this animal very nearly resemble those of the *paradoxus*: but the stomach is larger, is lined with a cuticle, and, towards the pylorus, has a considerable number of horny papillæ, of $\frac{1}{10}$ of an inch in length, on its inner surface. Mr. Home found some fine white sand in the intestines; whence he supposes that a quantity of that substance is always swallowed with the food, and that the stomach is therefore sufficiently large to contain both the food and the extraneous matter accompanying it.

Mr. H. gives a summary of the peculiarities of the *Ornithorhynchus*, as a tribe of animals; and then he adds:

'These characters distinguish the Ornithorhynchus, in a very remarkable manner, from all other quadrupeds, giving this new tribe a resemblance in some respects to birds, in others to the Amphibia; so that it may be considered as an intermediate link between the classes Mammalia, Aves, and Amphibia; and, although the great difference that exists between it and the Myrmecophaga, the nearest genus we are at present acquainted with, shows that the nicer gradations towards the more perfect quadrupeds are not at present known,

* See Rev. Vol. xxxix. N. S. p. 403.

the

the facts which have been stated may induce others to prosecute the inquiry, and render that part of the chain more complete.

'Between it and the bird, no link of importance seems to be wanting.'

The author adduces the drake as an instance of the great affinity that exists between the male organs of the *Ornithorhynchus*, and those of birds.—This and the other parts of his subject are illustrated with plates.

On the Composition of Emery. *By* Smithson Tennant, *Esq. F.R.S.*—Emery has generally been regarded by mineralogists as an ore of iron: but the present author is disposed to consider the small quantity of this metal, which it contains, as an impurity, and not a necessary constituent. From the result of his experiments, it appears that, with the exception of including rather more iron, it is very similar in nature and composition to the diamond spar. When the emery was reduced to a coarse powder, and the principal part of the iron abstracted from it, by means of the magnet, one hundred parts of the remainder were found to contain as follow:

Argillaceous Earths -	80 parts.
Silex - -	3
Iron - -	4
Undissolved - -	3
	90

The plan adopted in this analysis was nearly similar to that which was employed by M. Klaproth, in his examination of the diamond spar; and the proportion of the ingredients in both these substances was sufficiently near to convince the author that they are essentially the same. M. Klaproth obtained from 100 parts of the Chinese Corundum, after it was separated from the particles attracted by the magnet,

Argillaceous Earths -	84 parts.
Silex - -	6,5
Iron - -	7,5
	98

The difference between the loss of weight in the analysis of the emery, and that of the diamond spar or corundum, is attributed by the author to the latter having been conducted with more care than the former.

so far
——Yet.
See p. 419.

The usual lists and index terminate this volume.

ART. XIV. *The New Cyclopædia; or Universal Dictionary of Arts and Sciences:* Formed upon a more enlarged Plan of Arrangement than the Dictionary of Mr. Chambers; comprehending the various Articles of that Work, with Additions and Improvements; together with the New Subjects of Biography, Geography, and History; and adapted to the present State of Literature and Science. By Abraham Rees, D.D. F.R.S., Editor of the last Edition of Mr. Chambers's Dictionary. With the Assistance of eminent professional Gentlemen. Illustrated with new Plates, including Maps, engraved for the Work by some of the most distinguished Artists. 4to. Vols. I. and II. in two Parts each. Price 18s. each Part in Boards. Longman and Co. &c. &c. 1802.

THE public have for many years testified their approbation of the Dictionary of Arts and Sciences prepared by Mr. Chambers; and new editions of it have still received the most liberal sanction. Like all human productions, however, imperfections were discernible in it; and even the progress of knowlege must continually tend to produce deficiencies in such compilations. The last edition of Chambers, from the pen of the learned and industrious Dr. Rees, appeared in 1786, and was mentioned in our Reviews for November and December in that year. From the consideration, however, of those circumstances, and the operation of those causes, which we have just mentioned, another renovation of this work, subject to some alterations and embracing various additions, has now become expedient; and Dr. Rees has again stepped forth in the cause of science, and in the service of the literary world, with a continued zeal, and even with an augmentation of effort, which at his period of life are the more commendable because they are the more uncommon.

In this early stage of the undertaking, it is impossible for us to deliver any decisive opinion on the merits of its execution; and indeed a publication of such extent and magnitude may be said almost to mock the powers of Reviewers, and the nature of a Review, even while its importance may be thought peculiarly to demand their examination and their judgment. For the present, we shall chiefly content ourselves with stating, from the Preface, the editor's account of the design which has been adopted, and the plan which is proposed to be followed; adding the names of those gentlemen who have avowed themselves as coadjutors with Dr. Rees in his laborious office, two or three specimens of the new articles, and a few detached remarks.

We are informed that, the Proprietors of Chambers's Cyclopædia having again directed their attention to that work, with a view to the present state of science,

' It

'It was their first intention to have merely published another edition, with such supplementary corrections and additions as might be thought necessary; and they were the more desirous of adopting this plan, because they would thus have had an opportunity of gratifying the purchasers of the former edition with the modern improvements. But after the maturest deliberation, they are convinced that a plan of this kind would be altogether impracticable. The alterations and additions are so numerous, that it would be impossible to introduce them in a SUPPLEMENT with any degree of advantage to the original work, to the Public, or to themselves. They have therefore determined to publish a NEW WORK, and to avail themselves of the opportunity that is thus afforded them, of reducing the *Folio* to the *Quarto* size, which is much more commodious for general use; of making some considerable alterations in the general plan of the work; of inserting a variety of new subjects, which no former edition of Mr. CHAMBERS'S CYCLOPÆDIA had comprehended; and of annexing to the whole, *Maps* and various other Plates, designed and executed by the best Artists.

'In forming the general plan of this work, the Editor, availing himself of considerable experience in this department of literary labour, and of the opinion of many judicious friends, has determined to adopt that, which, after much reflection on his own part, and the advice of competent judges, seems best adapted to the design of communicating knowledge by means of a Dictionary. Whatever may be the advantage resulting from separate Dictionaries appropriate to each particular Science, which is the plan of the FRENCH ENCYCLOPEDIE, or from distinct Treatises introduced in a Dictionary of one Alphabet, which is the plan that has been adopted by other modern compilers of works of this kind, the inconvenience and perplexity that attend the multiplication of Alphabets, whether they occur in different serieses of Volumes, or in the form of an Index at the close of each Treatise, will furnish an objection against this mode of arrangement, which it will not be easy to obviate. In a work of such magnitude as the French Dictionary, consisting already of above an Hundred Volumes, and of undetermined extent, the best Treatises that have been written, or that may be written, on each subject, may be introduced; and the work itself may be a complete Library, and supersede the necessity of recurring to any other. But in a publication of limited compass, such as booksellers may undertake, and the general class of readers purchase, it is hardly possible to combine separate articles, sufficiently instructive, with treatises equally comprehensive and complete. To those who usually consult Dictionaries for information, this plan, we are persuaded, is by no means the most eligible. If they wish to extend their knowledge beyond the limits to which a Dictionary must necessarily restrict it, they will recur to appropriate treatises for the purpose; and the Dictionary should furnish them with the necessary references. A Dictionary is intended for communicating knowledge in an easy and expeditious manner; and it is desirable, that the several articles should be so full and comprehensive, as to afford sufficient instruction on the

subject

subjects to which they relate, without the necessity of recurring to another Dictionary, or to an Index, for further information.'—

'In this NEW CYCLOPÆDIA, it is proposed to give, under each distinct head of Science, an historical account of its rise, progress, and present state, concisely and yet as comprehensively as our limits and our sources of information will allow; to specify the subjects which such Sciences include; to refer to those articles in which the discussion of them occurs; and to point out such publications as afford fuller information. References of this kind will be introduced under each separate article, wherever they shall be thought necessary and useful: and thus the reader will be able to judge concerning the authorities upon which the compilers of the several articles depend; and if he should have opportunity or inclination, he may recur to them for himself.

'Whilst the Gentlemen concerned in this work will avail themselves of the assistance which other similar Dictionaries afford them, they will not content themselves with mere transcripts; they will resort as much as possible to original writers; and by the citations which they subjoin to the several articles, the Public will judge of the extent of their research, and of the industry and labour which they have bestowed on this compilation. In their account of the Arts and Manufactures, they will consult the artisans and manufacturers themselves, and derive from them every kind of information that is likely to conduce to the credit and utility of the work.'—

'Besides the subjects which the last edition of Mr. CHAMBERS'S CYCLOPÆDIA comprehends, the account of which will be abridged or amplified, corrected and amended, and mostly re-written, as may be found necessary, and to which a variety of new articles of a similar kind will be added, this Dictionary will include ancient and modern Geography, illustrated by new Maps, Biography, and Sketches of ancient and modern History.'

It is rather a peculiar feature of this Dictionary, that the names of so many contributors to it are given to the world: but it is a communication which must be acceptable, because the public are thus enabled to judge of the probable ability with which the design will be executed; these Gentlemen being already known by their talents in the different provinces in which they here act, and their reputation standing pledged for the due performance of their present engagement, as well as for the principles advanced in it. A recent advertisement in the public papers thus states the names and departments of the principal of them:

'AGRICULTURE.—R. W. Dickson, M.D.

'ANATOMY (*Human*).—John Abernethy, F. R. S., Assistant Surgeon of St. Bartholomew's Hospital, &c.

'ANATOMY (*Comparative*).—Mr. James Macartney, Lecturer upon Comparative Anatomy and Physiology at St. Bartholomew's Hospital, &c.

'ANNUITIES,

'ANNUITIES, SURVIVORSHIP, &c.—William Morgan, F.R.S.
'ANTIQUITIES.—Mr. Henry Ellis, of St. John's College, Oxford.
'ARCHITECTURE.—William Territt, LL.D.; John Flaxman, R.A.; and Mr. Webster.
'BRITISH TOPOGRAPHY.—Mr. John Britton.
'BLEACHING, DYING, CALICO PRINTING, &c.—Mr. Charles Taylor, and Mr. J. Thomson.
'BOTANY and VEGETABLE MATERIA MEDICA.—William Woodville, M.D. F.L.S.
'CARPENTRY, &c.—Mr. Peter Nicholson.
'CHEMISTRY and MINERALOGY.—Mr. Arthur Aikin.
'ENGLISH HISTORY.—Sharon Turner, F.S.A.
'ENGRAVING.—Mr. Wilson Lowry, and Mr. Thomas Milton.
'HERALDRY.—George Naylor, F.S.A., York Herald.
'MEDICINE.—Richard Pearson, M.D. F.S.A.
'MATERIA MEDICA.—Mr. C. R. Aikin.
'MIDWIFERY.—R. Bland, M.D. A.S.S.
'MUSIC.—Charles Burney, Mus. D., F.R.S.
'PAINTING.—Henry Fuseli, R.A. Professor of Painting.
'SCULPTURE and STATUARY.—John Flaxman, R.A., Sculptor to the King.
'SURGERY.—William Blair, A.M. F.M.S.
'VETERINARY ART.—Bracy Clark, F.L.S., Veterinary Surgeon.
'ZOOLOGY, CONCHOLOGY, &c.—E. Donovan, F.L.S.'

We may now extract a few of the articles, to exemplify the manner of writing and the extent of discussion; and we shall first quote the article *Acre*, as imparting much useful information in addition to the former statement under this head:

'ACRE denotes a quantity of land, containing four square Roods, or 160 square Poles or Perches. The word, perhaps, is formed from the Saxon *acere*, or German *acker*, field, or the Latin *ager*. Salmasius derives it from *acra*, used for *acæna*, a land-measure among the Ancients, containing 10 feet. The term acre formerly meant any open ground or field, as Castle-acre, West-acre, and not a determinate quantity of land.

'By the custom of countries, the perch differs in quantity, and consequently the acre of land: it is commonly 16½ feet; but in Staffordshire it is 24 feet; in other counties 28 feet; and in some parts of England 18, 21 feet. According to the statute 34 Hen. VIII. concerning the sowing of flax, it is declared, that 160 perches, i. e. 16 in length, and 10 in breadth, or in that proportion, make an acre; and the ordinance for measuring land, 35 Edw. I. agrees with this account. And therefore, as the statute length of a pole is 5½ yards, or 16½ feet, the acre will contain 4840 square yards, or 43,560 square feet. Moreover, as the chain, used in measuring land, is four poles or 22 yards in length, the square chain will be 484 yards, and the acre will be 10 square chains. And a mile being 1760 yards, or 80 chains in length; the square mile will be $1760 \times 1760 = 3{,}097{,}600$ square yards, and contain $80 \times 80 = 6400$ square chains, or 640 acres.

Some old farmers distinguish between seed acres and statute acres; the former being a vague measure, determined by the proportion of seed used in sowing it, and therefore depending on the fertility or barrenness of the soil.

'The Scots acre contains 4 Scots roods, and bears proportion to that of the English by statute, as 100,000 to 78,694, regard being had to the difference betwixt the Scots and English foot. One square rood is 40 square falls; one square fall, 36 square ells; one square ell, 9 square feet, and 73 square inches; and a square foot, 144 square inches. The Scots acre is also divided into ten square chains; the measuring chain being 24 ells in length, and consisting of 100 links, each link 8,928 inches; and each square chain will contain 10,000 square links. The English statute acre is about 3 roods and 6 falls, standard measure of Scotland.

'The French acre, *arpent*, is different in various provinces; the acre of Paris contains 100 square perches, the perch being 18 feet, or 3 toises; but in some places the perch is 20 feet, and in others 22. Allowing the proportion of the English square foot to be to that of the French, as 1000 to 1165, the acre of 100 square perches, at 18 feet each, will be 32,400 French square feet, or about 36,774 English square feet; and, the perch being 22 feet, the acre will be 48,400 French square feet, or about 54,934 English square feet; and the English acre being 43,560 square feet, it will be very easy to estimate the proportion of the one to the other. The Strasburg acre is about half an English acre. The Welsh acre contains commonly two English ones. The Irish acre is equal to 1 acre, 2 roods, 19 perches $\frac{27}{121}$, English.

'Houghton gives a table of the number of acres to a house in each county of South Britain, which is found to vary in the English counties from $3\frac{1}{2}$ acres, the proportion in Middlesex, and $17\frac{1}{2}$ in Surry, to 49 acres in Southampton; in the Welsh counties, from 51 acres, as it is found in Flintshire, to 193, as in Merionethshire.

'Dr. Grew attempts to ascertain the number of acres in England; which, according to him, amounts to 46 millions and 80,000. Phil. Trans. N° 330, or Abr. vol. iv. p. 450. Sir William Petty reckons but 28 millions; others 29 millions. And by an account of the number of acres in each county, supposed to be taken from some old registers, the number of acres in England amounted only to $39\frac{1}{4}$ millions. Others estimate the number of acres in England and Wales at about 46,916,000; and in Scotland 26,000,000; whilst others again assert, that England and Wales contain no more than 38,500,000 acres; and that Scotland with its adjacent islands, contains about 21 millions of acres. Allowing with Zimmermann, (Political Survey, p. 192.) that England and Wales contain 54,112 square miles, and Scotland 25,600 square miles; the number of acres in the former will be 34,631,680, and in the latter 16,384,000. Ireland, comprehending 21,216 square miles, will contain 13,578,240 acres.

'The United Provinces are said to contain 4,382,000 acres, but reckoning with Zimmermann (Political Survey, p. 164.) the area 10,000 square miles, the number of acres will be 6,400,000; and the province of Holland is estimated at one million of acres, or according

to the same writer, 1,280,000 acres: and they were thought formerly to contain 2,400,000 persons, but according to a public account given in 1785, 2,758,632 persons. If England were as well peopled in proportion, it is said that it would contain 46 millions of inhabitants, *i. e.* about seven or eight times as many as it now contains.

'The area of France, according to the statement of Necker, is 157,924 square miles; and if this estimate be just, it contains 101,071,360 acres. Spain, according to Lopez's map, contains 148,448 square miles; and consequently 95,006,720 English acres. Portugal comprehends 27,376 square miles, or 17,579,640 acres. The whole of Turkey in Europe, Asia, and Africa, estimated at 800,000 square miles, contains 512,000,000 acres. The European part of Russia is said to contain 1,194,976 square miles, and consequently 764,784,640 acres; and Asiatic Russia supposed to be 3,695,024 square miles, includes 2,364,815,360 acres. If Sweden contains 216,000 square miles, as Busching states it, its extent in English acres will be 138,240,000. Denmark, comprehending 182,400 square miles, will contain 116,736,000 acres. Poland and Lithuania, estimated at 160,800 square miles, will contain 102,912,000 acres. The kingdom of Prussia, including the countries that are independent of the German empire, supposed to contain 57,600 square miles, comprehends 36,864,000; and Prussia alone containing 22,144 square miles, includes 14,172,160 acres. Germany, estimated at 191,571 square miles, contains 122,605,440 acres. Switzerland, containing 15,296 square miles, has 9,789,440 acres. Italy, containing 90,000 square miles, has 57,600,000 acres. Hungary and Transylvania, having 92,112 square miles, include 58,951,680 acres. The number of square miles in Europe is estimated at 2,627 574, and consequently it contains 1,681,647,360 acres. The territory of the United States of America, according to the measurement and computation of Mr. Hutchins, geographer to the States, contains 589 millions of acres, exclusively of water, which is computed at 51 millions more. Morse's Geog. p. 35. See Political *Arithmetic*.

'By a statute of 31 Eliz. it was ordained, that if any man erected a new cottage, he should add four acres of land to it; but this statute was repealed by 15 Geo. III. c. 32.'

The late discussions respecting the use of *Air* in medicine and surgery afford a new and interesting article:

'Air, in *Surgery*. The application of gaseous matters to the purposes of surgery, has not been sufficiently attended to. There is reason to believe that several aeriform substances might be employed locally, as well as internally, to considerable advantage; but it would exceed the bounds we have prescribed to this department of our work, were we to adduce all the facts that might be brought forward to illustrate the medicinal powers of air, in its different combinations. The application of fixed air, or carbonic acid gas, by means of the fermenting cataplasm, is pretty generally known, in cases of fetid and gangrenous sores. It has been advantageously used also in malignant ulcers

ulcers of the nose, tongue, and mouth, as well as in caries of the bones.

'Fixed air is plentifully obtained from a mixture of alcaline or chalky substances with vitriolic acid; and during the effervescence, applying the gas which is extricated immediately to the morbid part; or by impregnating water with it, compresses may be soaked in the water, and laid frequently over the seat of the disease. Mr. Loeffler, a German surgeon, has recommended a particular apparatus for this purpose, which may be easily constructed; and which he employs for saturating water with fixed air, by the mixture of chalk and vitriolic acid, or during the process of fermentation.

'When we wish to apply the air to a cancerous breast, for example, we are to fill a bladder with the air as it rises from the above mixture. Then introduce a tube, fixed to its orifice, into another bladder, which is to be cut round in such a manner that it can be applied like an open bag around the breast, and held close to it with the hands. When it is fastened below, it must be untied, so that the fixed air may pass out of the first into the second bladder, and find access to the ulcerated part. In order to facilitate this process, a gentle degree of pressure is to be applied to the bladder; and, as one bladder will not be sufficient, a number of them should be provided in readiness, and filled for immediate use in succession. This operation is to be continued half an hour or longer each time, and repeated twice or thrice a day.

'Mr. Witstock, who has written a German treatise on this subject, and with extraordinary success, recommends us to apply the carbonic acid gas, by means of a receiver or air-bell, connected with a flexible tube or pipe, sufficiently air-tight; but as the vitriolic acid produces too strong a commotion, the gas is extricated for such purposes from a mixture of fixed alkali and vegetable acid.

'The medicinal use of factitious airs is a subject which has been diligently considered by Dr. Beddoes, Dr. Thornton, Mr. Hill, Mr. Davy, and some other gentlemen in England; but the enquiry is still in its infancy, and has not been productive of so much public benefit as its zealous friends anticipated. Perhaps the attention of medical men to the *local* and *external* influence of gaseous matters, would better repay them for their trouble. Surgeons are not exactly agreed, whether the atmospheric air be hurtful to wounds and internal cavities, merely as air, or as it may be cold, hot, moist, dry, or variously modified. We hope these superficial hints will serve to excite the attention of professional gentlemen to this branch of the healing art. It likewise deserves further enquiry, whether the injection of fluids into the urinary bladder, impregnated with fixed air, &c. &c. be so efficacious, in calculous cases, as some persons have pretended.

'From observations on bleeding in rheumatisms, and after taking cold, it is evident, the air can enter with all its qualities and vitiate the whole texture of the blood, and other juices.

'From the palsies, vertigoes, and other nervous affections caused by damps, mines, &c. it is evident, that air thus qualified can relax and obstruct the whole nervous system. And from the colics, fluxes, coughs,

coughs, and consumptions produced by damp, moist, and nitrous air, it is evident it can corrupt and spoil the noble organs, &c.'

A short specimen of the editor's attention to Modern Geography will be found in his account of the *Alps*:

'ALPS, *Lower, Department of,* is one of the four composed out of the ci-devant Provence, in France. It is bounded on the north by the department of the Upper Alps, on the east by Piedmont and the department of the Maritime Alps, on the south by the department of the Var, and the north-east extremity of that of the mouths of the Rhine, and on the west by the departments of Vaucluse and the Drôme. Its chief town is Digne. Its superficies is about 1,459,699 square acres, or 745,007 hectares; its population comprehends 144,436 individuals; and it is divided into five communal districts.

'ALPS, *Upper, Department of,* makes a part of Dauphiné, which contains three. It is bounded on the north by the departments of Mont Blanc and Isere, on the east by Piedmont, on the south by the department of the Lower Alps, on the west by that of the Drôme and part of that of Isere. Its chief town is Gap. Its superficies is about 1,084,614 square acres, or 553,569 hectares; its population comprehends 116,754 persons; and it is divided into three communal districts.

'ALPS, *Maritime, Department of,* is formed of the county of Nice. It is bounded on the north by the Apennines and the department of the Lower Alps, on the east by the republic of Genoa, on the south by the Mediterranean, and on the west by the department of the Var and Lower Alps. Its chief town is Nice. Its superficies is about 632,619 square acres, or 322,674 hectares; its population amounts to 93,366 persons; and it is divided into three communal districts.'

Under the head of *Apollo*, we have this account of the celebrated statue of that Deity called the *Apollo of Belvidere*, and of its recent removal to the emporium of the republican Gauls:

'APOLLO BELVIDERE, in *Sculpture*, a very celebrated antique statue, esteemed by the majority of artists the most excellent and sublime of all the antient productions. It was found towards the end of the fifteenth century, at Capo d'Anzo, upon the sea-coast, about twelve leagues from Rome, in the ruins of antient Antium. It was purchased by pope Julius II. when only cardinal, and placed in his palace near the church of Santi Apostoli; but soon after, being made pope, he removed it to the Belvidere of the Vatican; from whence it takes its name, and where it was for three hundred years the admiration of the world; until Rome was taken and plundered by the French, who have transported this divine statue to the Museum at Paris.

'The marble out of which this statue was worked, is of so peculiar a kind, as to occasion much doubt about the quarry it was taken from. The sculptors of Rome are all of opinion that the marble is Grecian; with the exception of one or two, who call it marble of

Luni

Luni or Carrara. However positive these opinions may be, it came most probably from a quarry totally unknown at this day.

'Some accounts have stated, that this statue was the work of Agathias the Ephesian: but the French artists, who were sent to Rome at the time of the incursion of the French into Italy, to explore the different works of art and their history, state that the author is certainly unknown.

'This statue is a standing figure, almost naked, and more than seven feet in height: it has a freedom, grace, and majesty in the whole attitude, and especially in the turn of the head, that surpasses any other antique known. The god is here represented with his quiver hanging behind his right shoulder, and his pallium over his left arm, which is extended, and has in the hand the remains of a bow, out of which he is supposed to have just discharged an arrow at the serpent Python. On this account the statue is called Apollo Pythius. The mind of the god is here so nobly exhibited, that without saying too much, he evidently appears watching the event of his aim; but with such confidence and majesty, as proceed from a certainty of success in the attempt; forming a sublime contrast to the tremulous anxiety of Discobulon, who, in another statue, is represented as having just thrown the discus. On the stump of a tree, introduced in order to strengthen the figure, is executed a serpent, the symbol of physic, of which Apollo was god. To describe this figure in few words; it is a complete composition of sublimity, elegance, activity, and youthful beauty. The right fore-arm and the left hand, which were wanting, have been restored by Giovanni Angelo da Montorsoli, pupil of Michael Angelo.

'In the eighth year of the French Republic, Bonaparte, accompanied by the third consul Lebrun, was present at the inauguration of this statue; and on the occasion, a bronze tablet was presented, in the name of the artists, by Citizen Vien, and placed on the pedestal of the statue, on which was engraved the following inscription:

La statue d'Apollon, qui s'élève sur ce piédestal
trouvée á Antium sur la fin du XVe siècle,
placée au Vatican par Jules II. au commencement du XVIe
conquise l'an V. de la République par l'armée d'Italie,
sous les ordres du Général Bonaparte,
a été fixée ici le 21 Germinal, an VIII.
première année de son consulat.

On the opposite side of the pedestal is engraved:

Bonaparte, Ier Consul.
Cambaceres IIe Consul.
Lebrun, IIIe Consul.
Lucien Bonaparte, Ministre de l'intérieur.'

Geography being a science of which the details were not admitted into Mr. Chambers's work, we shall give an instance of Dr. Rees's introduction of it with regard to its *antient* state, as well as the slight particulars of its *modern* arrangement already quoted:

'Ararat,

'ARARAT, a mountain of Asia, in Armenia, on which the ark of Noah rested after the cessation of the deluge. Concerning the etymology of the name, Dr. Bryant observes (Anc. Myth. v. iii. p.2.) that it is a compound of *Ar-Arat*, and signifies "the mountain of descent," being equivalent to הַר-יָרַד Har-irad, of the Hebrews.

'Of the precise situation of this mountain different accounts have been given. Some have supposed that it was one of the mountains which divide Armenia on the south from Mesopotamia and that part of Assyria inhabited by the Curds, from whom those mountains took the name of Curdue, or Cardu; by the Greeks denominated Gordyæi. It is called by the Arabs Al-Judi, and also Thamanin. In confirmation of this opinion, it is alleged that the remains of the ark were to be seen on these mountains; and it is said, that Berosus and Abydenus both declare, that such a report existed in their time. Epiphanius pretends, if we may credit his assertion, that the relics of the ark were to be seen in his time; and we are further told, that the emperor Heraclius went from the town of Thamanin, up the mountain Al-Judi, and saw the place of the ark. Others maintain, that mount Ararat was situated towards the middle of Armenia, near the river Araxes, or Aras, about twelve miles from it, according to Tournefort, above 280 miles distant from Al-Judi, to the north-east. This mountain is called "Masis" by the Armenians, and by the Turks "Agridagh," or the heavy and great mountain; and stands about twelve leagues to the south-east of Erivan, and of Ejmiadzin, from which it is distant about two short days' journey; four leagues from the Aras, and ten to the south-west of Naxuan, or Nachidshevan, or Nactshevan, of M. D'Anville, and the Naxuana of Ptolemy. Near this city is another small town, mentioned by William de Rubruquis, who travelled through Armenia in 1253, and called Cemainum, which is by interpretation eight, and as he says, so called from the eight persons who came out of the ark and built it. This is supposed to be the same with Shemainum or Shemanum, formed of the Hebrew שְׁמֹנֶה eight, or the Themanim and Thamanim of Elmacieri and others, which was said to have been built by Noah. Ararat seems to be a part of that vast chain of mountains called Caucasus and Taurus; and upon these mountains, and in the adjacent country, were preserved more authentic accounts of the ark than in almost any other part of the world. The region about Ararat, called Araratia, was esteemed among the ancients as nearly a central part of the earth; and it is certainly as well calculated as any other for the accommodation of its first inhabitants, and for the migration of colonies, upon the increase of mankind. The soil of the country was very fruitful, and especially of that part where the patriarch made his first descent. The country also was very high, though it had fine plains and valleys between the mountains. Such a country, therefore, must, after the flood, have been the soonest exsiccated, and consequently the soonest habitable.

'Some have objected to the Mosaic account of the dove and olive, and will not allow that the ark rested in Armenia, because travellers of late have discovered no olives in that country. Thus also it might be said, that because there are in these days no balsam at Jericho,

nor date trees in Babylonia, there were none in ancient times; but the inference with regard to Armenia would be as false as it is frivolous. Strabo, who was a native of Asia Minor, speaks expressly of the fertility of Armenia, and especially (lib. xi. t. ii. p. 800.) of the region Gogarene, which he particularly mentions as productive of the olive.

'It is not certain when the descendants of Noah quitted this country. Many of the fathers were of opinion, that they did not leave it for some ages. According to Epiphanius (Hær. lib. i. p. 5.) they remained in the vicinity of Ararat for five generations, during the space of 659 years. Probably Noah might never depart from it; nor have we any account of his sons leaving it till the general migration.

'The mountain has still the name of Ararat, which it has retained through all ages. Tournefort (vol. ii. 267, &c.) has particularly described it, and from his account it seems to consist chiefly of free-stone, or calcareous sand-stone. It is a detached mountain in form of a sugar-loaf, in the midst of a very extensive plain, consisting of two summits; the lesser more sharp and pointed, the higher, which is that of the ark, lies north-west of it, and raises its head far above the neighbouring mountains, and is covered with perpetual snow. When the air is clear, it does not appear to be above two leagues from Erivan, and may be seen at the distance of four or five days' journey. Its being visible at such a distance, however, is ascribed not so much to its height, as to its lonely situation, in a large plain, and upon the most elevated part of the country. The ascent is difficult and fatiguing. Tournefort attempted it; and after a whole day's toil, he was obliged, by the snow and intense cold, to return without accomplishing his design, though in the middle of summer. On the side of the mountain that looks towards Erivan, is a prodigious precipice, very deep, with perpendicular sides, and of a rough black appearance, as if tinged with smoke.'

Architecture is merely introduced by a few general remarks; and we are referred to the *adjectival* heads *Civil*, *Military*, and *Naval*, for a discussion of the science in its relation to those three purposes. This is a singular occurrence, and must have arisen, we suppose, from the change of gentlemen engaged in that department, which appears from the lists.

Biography is another of the subjects introduced in this work which were excluded by Mr. Chambers. We have not been able to examine all the scattered articles which already occur under this head: but we are induced to recommend a considerable severity of discrimination in this branch, by observing several names which have little claim to such distinction. For instance, Dr. Amory, a dissenting clergyman, though introduced by the partial hand of Dr. Kippis into the *Biographia Britannica*, should not have been recorded either in that work or this; because, though said to be a man of worth and talents, his situation in life and his labours in the cause of literature were

were not remarkable nor important. We rather object to the inserion of Michelagnolo Buonaroti, M. A. da Caravaggio, and others, under *Angelo*.

With respect to the size of this Dictionary: it must be admitted that a quarto is more convenient for consultation than a folio: but we think that a *larger* quarto would have been more eligible and more handsome in the present case; and we hesitate in allowing the propriety of confining the plates to this size. Maps, especially, in order to be really useful, should unquestionably be large. We hope that to this part of the design the editors will give the fullest attention; and we trust that they will not follow the specimen afforded in Part I. of Vol. II., where we meet with a map of the empire of Charlemagne, including nearly the whole of Europe and a part of Africa, on so small a scale that it reminded us of the dextrous feat of a country schoolmaster, who wrote the Lord's Prayer without abbreviation in the circumference of a silver threepence.—The plates are in general very well executed, by Messrs. Milton and Lowry.

It is at present intended to publish two volumes (each in 2 parts) in the course of every year: but, when all arrangements respecting the work are completed, the editor proposes to make the publication more rapid. According to calculation, the whole will form about 20 Volumes.

There can be no doubt of the success of a work, the design of which forms an object of such comprehensive utility, and the execution of which is guaranteed by so many respectable names. To say that it is or will be marked by errors and deficiencies is only to say that it is the production of mortals: from whom perfection, if ever to be sought, is not to be expected in a vast and arduous undertaking. We now take leave of it for the present; our future notice of it will be adapted to the circumstances which may arise at the different periods of its progress.

G. 2.

MONTHLY CATALOGUE,

For APRIL, 1803.

RELIGIOUS.

Art. 15. *The Church of England vindicated from Misrepresentation*; shewing their genuine Doctrines as contained in her Articles, Liturgy, and Homilies, with a particular Reference to the "Elements of Christian Theology," by the Bishop of Lincoln. By a Presbyter of the Church of England. 8vo. 3s. Mawman.

Uniformity of opinion cannot exist, till all mankind shall be able to adopt the very same method in collecting and in arranging their ideas. In the present state of human knowlege, both the framers and the expounders of articles of faith are nearly in the same predicament; they will please some, but they cannot possibly satisfy all parties. They will be condemned as asserting too little or too much; as being too lax, or too rigid. As to the articles of the Church of England, the Bishops and Clergy who have subscribed them are not yet agreed respecting their general complexion; and it remains to be decided whether they are *Calvinistic* or *anti-Calvinistic.* The Presbyter, who writes the pamphlet before us, contends that their uniform language, sense, tenor, and design, prove them to be *Calvinistic*; and he reprobates every attempt made by the Bishop of Lincoln, to affix on them any other meaning. It is not necessary for us to become parties in this dispute: but we may be permitted *en passant* to question the propriety of accusing all those who do not subscribe the articles, in the precise sense of the original compilers, as guilty of '*disguised atheism.*' Is it impossible to acquire more correct views of religious doctrine, than were obtained by the old reformers just emerged from Popery? Are not more enlarged and liberal sentiments, on some points, to be cherished by the present members of the Christian church, than were formerly entertained? Are the Clergy of the present day obliged implicitly to respect the authority of former times? Are the Bishops to be reprobated for leaning to the side of mildness and moderation? Or is the language of the first reformers to be sacredly retained, if found to be at variance with the language of scripture? We must applaud the Bishop of Lincoln for entering his protest against the damnatory clauses of the Athanasian creed; though the present writer cannot see 'how the Church acted *unwisely* or *inconsistently* in asserting the everlasting punishment of those, who do not believe the doctrine asserted?' Let us ask him whether the *expressions*, by which the doctrine of the Trinity are set forth, can be found in Scripture; and whether it be not *inconsistent* with charity, as well as *extremely unwise,* to pronounce damnation on all who do not receive a human explication of a divine and confessedly inexplicable mystery? In one place, the Presbyter says, '1 am jealous, that they who substitute other terms, instead of scripture language, in controversy, mean to hide something under equivocal expression.' Let him apply this idea to the doctrine of the Trinity, as well as to other tenets; and before the Bishop is condemned for wishing to expunge the damnatory clauses from the Athanasian creed, let the Presbyter shew that the language of this creed is an *exact* transcript of scripture language.

It may also be asked, in what part of scripture is the assertion that "works before the grace of Christ, or which spring not of faith in Jesus Christ, *have the nature of sin?*" Sin is defined to be "a want of conformity unto or transgression of the law of God." Now if this want of conformity does not exist, how can *sin exist?* If the law of the dispensation under which a creature is placed be obeyed, can he be said to sin because he is not actuated by a principle with which it was impossible, in the very nature of things, that he should

be

be acquainted? The framers of articles, either through ignorance or the predominancy of system over their judgments, may express themselves without sufficient precision: but let us beware of impeaching the justice of God.

That there is an homogeneity of sentiment pervading the articles, liturgy, and homilies of the Church, is more than can be proved; though it will be readily granted that the original compilers employed such terms as *they*, leaning more towards Geneva than Rome, *thought* would best express the doctrines which were by them considered as orthodox. In their earnest desire to frame a true system of faith, they did not omit to maintain the superiority of the Scriptures, as a rule of faith, over all human formularies; and they have expressly asserted, in the Sixth Article, that "*whatever may not be proved by scripture is not to be required of any man.*"

We must allow, however, that this Presbyter, in arguing for consistency, argues with peculiar advantage; and it is not easy for a Bishop directly to reply to him. If certain clauses have been unwisely retained, as not according with the more liberal and enlightened state of the Protestant Church, the noblest conduct would consist in a resolution to retain them no longer: but, if certain fears and apprehensions operate against this measure, the lettered clergy must be permitted to avail themselves of this *saving* or *exonerating clause*; and if Bishops point out this clause for the benefit of the subscribing clergy, which has of late been repeatedly done, it may be regarded as a kind of admitted *loop-hole for tender consciences*. More may hereafter be effected. In the mean time, accusations of inconsistency and prevarication will, with some reason, be brought forwards against those Churhmen whose views are known to differ from those of the original reformers. The preachers of election, &c. will occupy high ground, and quote the articles with exultation. The case of others of the Clergy may be considered as hard; and it may be presumed that many will take the benefit of the above mentioned *absolving clause* to qualify their assent; notwithstanding that the Calvinistic or rather semi-Calvinistic Presbyter pronounces this prevarication to be criminal.

Art. 16. *The true Churchmen ascertained:* or an Apology for those of the regular Clergy of the Establishment, who are sometimes called Evangelical Ministers, occasioned by several modern Publications. By John Overton, A.B. 8vo. pp. 422. 8s. Boards. Mawman.

It is remarked by Mr. Overton, in his preface, that 'the commencement of the nineteenth century is not a season when men can be hoodwinked respecting their religion.' This may be true; yet is it not a little strange that, in the nineteenth century, Clergymen of the same church should be disputing with each other not only about the doctrines of the gospel, but about the meaning or genuine sense of the articles of religion, to which subscription is required in order to prevent diversity of opinions? Mr. O. is a strenuous advocate for those who are called and call themselves Evangelical Ministers; and who regard their subscription oath as obliging them to preach Calvinism, believing this to be the doctrine of the Articles.

To accomplish his object, he takes a very wide scope, and employs singular labour and perseverance. Reprobating all latitudinarian subscribers of the articles, he contends that these ought to be understood according to the natural, obvious, and full signification of the words; and he ventures to assert that 'the articles, homilies, and liturgy, though composed at different times and for different purposes, do in point of doctrine, uniformly breathe the same spirit and express themselves with the same degree of force.' Mr. O. does not exhibit, as he ought to have done, the genuine language of Calvin: but he institutes a particular inquiry into the private sentiments of our Reformers; and to prove the utility of that style of preaching which he honours with the epithet of Calvinistic or Evangelical, an appeal is made to the crouded churches, animated doctrines, and number of exemplary characters, that are to be found wherever this doctrine is the constant theme. The compilers of the articles are said to have possessed 'an *extraordinary degree* of intellect;' and all who extenuate or evade the plain, literal, and full meaning of them, and do *not* teach them as they were first delivered by our Reformers, are charged with *disingenuousness*, and advised to relinquish their connection with the Established Church, as being semi-dissenters or schismatics. 'We (says Mr. O.) are the true Churchmen; and they who do not *speak the same things as* the Church, who are not *perfectly* joined together in the same mind and in the same judgment, are *not* of the Church.'

This is a most authoritative decision; and, considering the various opinions entertained respecting the subject in debate, by good and eminent members of the Establishment, it borders on presumption. Mr. O. should not think of excluding from the Church those who do not contemplate the affair of subscription, and regard the sense of the articles, exactly in the same light with himself. He has noticed many respectable divines of the present day who have publicly avowed different sentiments; and this very circumstance ought to have restrained him from arrogating to himself, and his supposed Calvinistic brethren, the title of *the true* Churchmen. Mo-y.

Art. 17. *The Articles of the Church of England proved not to be Calvinistic.* By Thomas Kipling, D.D. Dean of Peterborough, &c. 8vo. 2s. 6d. Mawman.

"Who shall decide when Doctors disagree?" Here is a point-blank-denial of that hypothesis which Mr. Overton has taken such uncommon pains to establish; and, to give him a *Rowland* for his *Oliver*, Dr. Kipling charges him with being schismatical on the very title of his publication, which speaks not of the true *Church-of-England men*, but of the true *Churchmen*. Leaving them to settle this affair of schism, we shall attend to the evidence of this anti-Calvinist.

Avoiding all circuitous discussion, Dr. K. pursues a straight forwards course, and exerts all his power to bring the dispute, as far as it respects the pure Calvinism of the Church, to a satisfactory conclusion. In the first place, he supplies a strange omission of his antagonists; in ascertaining the exact sentiment of Calvinism, in its prominent feature, *Predestination*, including Reprobation, as well as Election, by consulting and making extracts from the writings of Calvin himself;

himself; after which necessary preliminary, taking advantage of the concession both of Mr. O. and the Presbyter of the Church of England, that the doctrines of the Articles are interwoven in the forms of Public Worship, and that there is a perfect correspondence between them, he proceeds 'to compare so many and such parts of the Liturgy with the true Calvinistic doctrine, as will fully enable every person of candour and judgment to decide, whether this Liturgy and this doctrine are in perfect harmony with each other.' Here Dr. K. completely triumphs. He proves that the language in the Absolution, that "Almighty God who *desireth not* the death of a sinner," that the prayer to be delivered from "everlasting damnation," and that the final benediction "the Grace of our Lord, &c. be with you *all*," cannot comport with Calvin's doctrine of Elects and Reprobates. He observes that the part of the Athanasian creed which declares that "all men shall *give account* for their *works*," the prayers in the Office for Baptism, and the Collect for the 25th Sunday after Trinity, not to mention other addresses to the Deity, are evidently Anti-Calvinistic; and he shews wherein the wording of the Articles is at variance with the expressions employed by Calvin. That the Reformers inclined towards Calvinism, though they might not embrace the complete system which Dr. K. very justly, in our opinion, pronounces to be blasphemous, there can be little doubt; and this will account for the Calvinistic colouring attempted to be thrown over the Articles. The reason which prevents the Liturgy from agreeing with Calvinism is that it was compiled from a book, all the prayers of which proceed on the principle that good works done in this life will be *rewarded* in another. In fact, exhortation, prayer, and a day of judgment, are useless on the Calvinistic scheme.

A singularity of expression pervades the Articles, which has no counterpart in the Liturgy; and since this singularity is not supported by scripture, why should the preachers of these times be so strenuous for its adoption in pulpit-exhortations? Is this desire prompted by a pure love of the Gospel, or by party-spirit, from which Theologians are not, alas! exempted? Howmuchsoever the Articles may have satisfied their compilers, who lived at the dawn of the Reformation, we may venture to assert that there are very few intelligent divines of the present day, who can read them with cordial and unqualified approbation. Mo-y.

Art. 18. *Remarks on the Doctrine of Justification by Faith:* In a Letter to the Rev. John Overton, A.B. Author of a Work intitled "The true Churchmen ascertained." By Edward Pearson, B.D. Rector of Rempstone, Notts. 8vo. 1s. 6d. Hatchard.

The object of Mr. Pearson's letter is to controvert the truth of a passage in Mr. Overton's work, asserting that 'Good works are neither the *meritorious cause*, nor the *appointed condition* of justification.' To rebut this doctrine, Mr. Pearson reminds Mr. O. that the Christian Religion is a *covenant*, and that a covenant implies conditions of *entering* into it at first, and conditions of continuing in it. Hence he proceeds to an examination of the positions of St. Paul and St. James, and concludes with maintaining, on the basis of the promised rewards

of the Gospel, that those performances, without which any proposed reward cannot be obtained, may properly and truly be called the *conditions* of obtaining it.

What reply can Mr. O. make? Mo.y.

Art. 19. *Remarks on a Pamphlet, by Thomas Kipling, D.D. Dean of Peterborough*, intitled, "*The Articles of the Church of England proved not to be Calvinistic.*" By Academicus. 8vo. 1s. Mawman, &c.

Labitur et Labetur—How *ingeniously* have the compilers contrived, under the pretext of promoting Unity, to throw an eternal bone of contention among the clergy of our Church! To opinion, opinion is opposed; zeal is encountered by zeal; and to *cherish the spirit of love*, one hard word is exchanged for another. *Academicus* is much dissatisfied with Dr. Kipling, and in one respect he is certainly justified in his displeasure: since the Dean of Peterborough was chargeable with unwarrantable severity in the motives which he ascribed to his opponents, and for such illiberality he merited reproof. In administering that reproof, this writer is more successful than in his endeavours to subvert the Dean's argument. The sentiments and language of Calvin were no doubt partly copied by the compilers of the Articles: but, in as much as the doctrine of Reprobation is not maintained, they are not *altogether* Calvinistic. Yet this omission of the doctrine of Reprobation is so far from satisfying *Academicus* that the founders disbelieved it, that he concludes, from 'the very words of the Article (the 17th), that they held the doctrine of Predestination both with respect to the Elect and the Reprobate.' We may remark, however, that the private sentiments of the compilers are here of no consequence; because, since they have designedly abstained from insisting expressly on the doctrine of reprobation, that tenet cannot be adduced as constituting a part of the Established Creed.

Academicus is not more prosperous in his examination of the Liturgy. The collect for Good Friday, "O Merciful God, who hatest nothing that thou hast made," cannot be Calvinistic; for Calvin says, "*Reprobos Deo* exosos *esse:*" but *Academicus* inquires, 'Do not the Scriptures say, "Thou *hatest* all them that work wickedness?" as if these passages were synonymous?

We are anxious to dismiss this tiresome subject *; and we humbly offer it as our opinion, that it would more conduce to the purposes of religion, and be more consistent with the conviction which we have of our own ignorance, if we abandoned all controversy on the divine decrees respecting individuals, and confined ourselves to the general and practical belief that "*the Deity chooses or elects him that is godly for himself.*" This would be plain and safe sailing. D.o

Art. 20. *Anguis in Herba!* A Sketch of the true Character of the Church of England and her Clergy: as a Caveat against the Misconstruction of artful and the Misconception of weak Men, on the Subject of a Bill about to be brought into Parliament for the Revisal of certain Ecclesiastical Statutes concerning Non-Residence, &c. &c. &c. By the Rev. James Hook, M.A. F.S.A. 8vo. 2s. 6d. Ginger. 1802.

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* But, alas; a *Reply* to *Academicus* is just advertized! Some

Some have spoken of *Jacobinism* or modern philosophy in vague terms: but Mr. Hook tries to draw its picture: he says, it is 'a *chimera* with the head of an atheist, the heart of a cannibal, the tongue of a patriot, and the hue of the camelion.' Having executed this portrait, he proceeds to attribute to the diabolical spirit of this monster the *hue and cry* which has been raised against the Clergy on the score of non-residence and plurality; neither of which evils it seems, is carried to any alarming extent. Mr. Hook hopes that, though the *poverty* of the Church cannot be remedied, she may at least be secured from insults and protected against pettifoggers; who, when they attempt to levy fines on the ministers of God, can be nothing less than instruments of sedition.

Art. 21. *An Examination of the First Part of a Pamphlet, called An Appeal to the Society of Friends.* By Vindex. 8vo. 1s. W. Phillips.

Our mention of the *Appeal* (M. R. Vol. xxxvii. p. 426. N. S.) was accompanied by a parenthetical hint that the author seemed to succeed but lamely in his attempt. The object of this Examiner is to prove that the Appellant cited very unfairly from the writings of the early Quakers; and that whoever deduces a judgment of their opinions from his quotations will consequently form an erroneous one. He complains of modern disturbers of the brethren, and, with an evident predilection for orthodoxy, condemns the discussion of abstruse points of doctrine as injurious to the cause of righteousness.

POETIC, *and* DRAMATIC.

Art. 22. *Saint Peter's Denial of Christ:* a Seatonian Prize Poem. By Rev. William Cockburn, M. A. Fellow of St. John's College, Cambridge. 4to. 2s. Rivingtons. 1802.

This poem begins with an address to 'truth,' praying that goddess to guide and inspire the poet; who disclaims any appeal to an 'ideal muse,' as being unworthy of his subject. Yet *Truth personified* appears to us as much an *ideal Being*, as the 'Heavenly Muse' whom Milton invokes to aid his song. The poem, however, does credit to Mr. Cockburn; whose use of peculiar words shews that he is not a stranger either to Milton or Spenser. The contraction of 'penitent' into two syllables, however, is harsh, and Milton does not authorize such a liberty:—but, refraining from minute criticism, we quote a short episode to Peace, as a favourable specimen of the author's talents:

'But come, sweet Peace,
Religion's handmaid! from thy native skies
Benign in loveliness descend, and soothe
With thy mild eloquence man's savage breast,
Unveil thy beauties to his raptur'd gaze,
And lull each angry passion to repose:
Not with more anxious hope on Ararat
Did Noah once expect the dove's return;
Not with more eager eye the Lapland swain
Looks from the horrid height of Dofrine snows

'Mid the dark whirlwind for the first bright beam
Of the long-tarrying day, than I have look'd
For thee, fair visitant!—Welcome at length
To Europe's war-stain'd plains, long may'st thou shed
Thy grateful influence o'er a happy world.—
—But whither does my fancy stray? The thoughts
Of thee, celestial maid! too far have drawn
Me from my purpos'd subject;—so the moon
Attracts the nightly traveller's willing eye,
And whilst he gazes on her placid charms,
He wanders devious from his destin'd course.'

Man.

Art. 23. *John Woodvil, A Tragedy.* By C. Lamb. To which are added, Fragments of Burton, the Author of the Anatomy of Melancholy. 8vo. 3s. Robinsons. 1802.

The lugubrious muse of Mr. Lamb, whose efforts in ballad and elegy we have recorded in our review of the *Annual Anthology* *, has now assumed the buskin, and presents us with an imitation of old English tragedy. We should have felt ourselves somewhat puzzled to characterize the hero, had not the author kindly furnished us with the appropriate epithet of '*lukewarm John.*' The piece is indeed as mawkish a composition as ever critic was compelled to digest:—but, if John be lukewarm, the heroine, Margaret, is sufficiently ardent, for she wooes and wins the gentleman—to ask her to pray with him!

'*John.* Excellent Lady,
Whose suit hath drawn this softness from my eyes,
Nor the world's scorn, nor falling off of friends,
Could ever do. Will you go with me, Margaret?
'*Margaret, rising.* Go whither, John?
'*John.* Go in with me,
And pray for the peace of our unquiet minds?
'*Marg.* That I will, John.——'

Precious souls! we have met with nothing so edifying since we read, in our youth, the *Religious Courtship.*

The merit of novelty, however, must be conceded to the author, in the catastrophe of the piece. Every species of tragical distress had apparently been exhausted: some heroes were hanged; others were married; and others were broken on the wheel. Dryden, as the climax of misfortune, threatened to put one of his heroes into the spiritual court: but the daring genius of Mr. Lamb has roused his '*lukewarm John*' to go to prayers at his parish church at six o'clock in the morning!—*Credite posteri!* We omit the careful specification of the dialogue, which ascertains, first, that the bells supposed to be heard are church-bells; secondly, that the aforesaid bells are the bells of St. Mary's Ottery; and thirdly, that they are the bells of 'lukewarm John's' native parish in Devonshire. Nothing can be wanting to complete this exhibition, but that John and Margaret should chant "*All people that on earth do dwell,*" before the dropping of the

* See Rev. vols. xxxi. and xxxiii. N. S.

curtain.

curtain. The tragedy would then conclude with some lines worthy the attention of the audience.

It is impossible to dismiss this strange performance, without adverting to the new class of authors, who endeavour to attract the public notice by substituting carelessness for exertion, and meanness for sublimity. We can account for their conduct on no other principle than that of Boileau;

"*Un sot trouve toujours un plus sot qui l'admire.*"

but of what description must the intellect be that can endure the tragedy before us, in which there is neither verse nor prose, nor reason nor nature?

The fragments, said to have been found in a common-place of Burton, are imitations of that author's style, which any man might produce with a *Florilegium* before him.

Fer.

MEDICAL, &c.

Art. 24. *Observations on the Epidemical Diseases now prevailing in London;* with their Divisions, Method of Treatment, Prevention, &c. By Robert Hooper, M.D. Resident Physician to the St. Mary-le-Bone Infirmary, &c. 8vo. 1s. 6d. Murray. 1803.

The attention of the public has been lately called to the existence of an epidemic disease, which has shewn itself in a great variety of forms, and has been extremely prevalent, not only in the metropolis but in distant parts of the country. Dr. Hooper's observations appeared about the time of its greatest violence, and were intended to exhibit a view of its remote causes, the general symptoms common to every form of it, its particular divisions, and the morbid appearances discovered by the examination of such cases as terminated fatally. The opportunities of obtaining extensive information on any prevailing disease, which are officially enjoyed by the ingenious author, necessarily give to his remarks a degree of weight, which cannot attach to such as have been derived from more limited experience.

The remote causes mentioned in this essay do not essentially differ from such as are usually found to produce catarrh. The general symptoms enumerated are; pain of the head; pains of the chest and limbs; dry and contracted skin, frequent pulse; tongue white in the centre, with the edges red and studded with very florid papillæ, giving a strawberry appearance; bowels constipated; violent catarrhal symptoms; considerable prostration of strength; occasional vertigo, delirium, coma, and bilious vomiting. These symptoms shewed themselves in some degree under every form of the epidemic; and the particular varieties, under which it for the most part appeared, were those of *peripneumonia vera*, *peripneumonia notha*, catarrh, and acute rheumatism.—The method of cure, also, recommended by Dr. Hooper, does not vary from that which is usually adopted for the removal of similar complaints. Persons of adult years seemed to be more readily affected by the epidemic than children; and the aged, or such only as laboured under previous acute diseases, formed the chief number of its victims.

The following appearances were observed by the author on dissection:

'*In the Head.*

'1. Inflammation of the internal lamina of the dura mater. A thickening of the tunica arachnoidea, principally upon the hemispheres of the brain.

'2. In one instance several spots of extravasated blood of the extent of a silver three-pence.

'3. A very transparent fluid effused between the arachnoid membrane and pia mater, and the intergyral spaces much distended.

'4. A high state of vascularity of the pia mater.

'5. The larger vessels and the sinuses contained coagulable lymph, which could be drawn out, and presented the form of their ramifications.

'6. The frontal sinuses full of a yellow mucus.

'*In the Throat and Neck.*

'1. A high state of vascularity of the membrane lining the posterior fauces, and covering the epiglottis.

'2. A tumefaction of the membrane lining the glottis.

'3. Great redness of the membrane lining the trachea, and here and there a state resembling gangrene.

'*In the Thorax.*

'1. An uncommon appearance of the muscles on the anterior part of the chest:—portions of the pectoralis major and upper packets of the rectus abdominis, were white, like coagulable lymph, so as to give the muscle a mottled appearance.

'2. Inflammation of the pleura costalis, with an effusion of coagulable lymph.

'3. Inflammation of the pleura pulmonalis, with an effusion of coagulable lymph, which conglutinated the lobes together.

'The healthy structure of the greater part of one or other lung destroyed, and converted into a grayish white hard mass, which, when squeezed, gave out a similar coloured fluid like thin pus. In some instances, the colour and consistence was like liver, and almost gangrenous: both of these sunk in water. These appearances of the lung were precisely like the lung of those who die at other times of pneumonia.

'5. The blood-vessels of the lungs plugged up with coagulable lymph.

'6. The pleura covering the diaphragm thickened, and covered with coagulable lymph.

'7. The right auricle and ventricle, and the pulmonary artery, distended with a very firm coagulable lymph, generally termed polypi.

'8. The intercostal veins and vena azygos very much distended with blood.

'*In the Abdomen.*

'1. Peritoneal inflammation here and there of the liver, stomach, and intestines.

'2. Inflammation of the erysipelatous kind of the villous coat of the stomach.

'3. The bile very dark and thin.'

Dr.

Dr. H. conceives that this epidemic arose from sudden changes of weather; and he is of opinion that it was not communicable from one person to another. If he admits, however, the last mentioned circumstance, we know not for what reason he defines one of his divisions, that of catarrh, to be 'cold from contagion.' Sudden vicissitudes of heat and cold are certainly capable of producing very considerable effects on the human body: but, when we recollect that changes fully as striking as those which have occurred during the late season have often taken place without the production of influenza, we are inclined to suspect the operation of other causes than those which the thermometer is capable of indicating.

Yell.

Art. 25. *Some Observations on the present Epidemic Catarrhal Fever or Influenza:* chiefly in relation to its Mode of Treatment. To which are subjoined historical Abstracts concerning the Catarrhal Fevers of 1762, 1775, and 1782. By Richard Pearson, M.D. 8vo. pp. 26. 1s. 6d. C. and R. Baldwin.

In these observations, the author describes the late epidemic as having assumed numerous appearances, and existed in various degrees of violence. Its most frequent phænomena are represented to be as follow:

'After some alternations of chilliness and heat, the patient is seized with a heaviness or pain of the head, with sneezing, wateriness of the eyes, hoarseness and cough. These symptoms come on in the order here stated. In the course of a few hours the headach increases, the skin becomes hot, with a pain in the back and limbs, or transitory stitches across the chest. The tongue is white; the pulse quick or frequent, and for the most part soft. There is more or less of sickness at the stomach, and sometimes vomiting. The bowels are generally costive; and considerable uneasiness, often amounting to great pain, is felt in some part of the abdomen. By the 2d or 3d night, the cough and fever become greatly aggravated. The former, viz. the cough, is strong and incessant, sometimes dry, but generally accompanied (even at its first coming on) with an expectoration of thin, sharp mucus: The latter, viz. the fever, is attended with increased heat, and with extreme restlessness and anxiety. There is also some confusion of the head. At this time the pulse is often from 110 to 120. In the morning there is a considerable remission of the febrile symptoms; but the cough still continues urgent, and the patient complains of excessive languor and dejection of spirits.

'After the 4th or 5th day, where early perspirations have come on, or sufficient evacuations have been procured by the bowels, the fever declines; and although the cough continues, the expectoration is more free, the sputum being of a thicker consistence, and milder quality. The urine, which before was high-coloured and clear, now becomes turbid, or throws down a sediment. In other instances, the cough goes off without any remarkable degree of expectoration.

'The lassitude and depression of spirits, with restless nights, harass the patients for many days after the decline of the fever; which indeed, in several instances, does not entirely go off after the 5th day,

day, but becomes intermittent, the patient feeling himself worse every other day.'

Dr. P. regards the fever, and not the pectoral symptoms, as in general constituting the essence of the complaint; and therefore he advises the treatment to be commenced with such remedies as act on the system at large, through the medium of the stomach and alimentary canal: viz. emetics and mercurial cathartics; and afterward, blisters, diaphoretics, gentle opiates, crystals of tartar as a diuretic, expectorants, and proper ventilation. He considers the disease as decidedly contagious; and, after having summed up the *Nocentia* and *Juvantia*, he concludes by an abstract from the more characteristic symptoms of the epidemic catarrhs which appeared in the years 1762, 1775, and 1782; all of which, he is of opinion, were extremely analogous to that of which he gives an account in the present essay.

On the subject of the contagious nature of the late prevailing disease, it seems to be difficult to form any thing like an accurate opinion, from our being unable precisely to discriminate between the effects of an epidemic constitution of the air, and those of the individual communication of infection. When sporadic cases only of catarrh occur, they are decidedly not contagious; and when this disease appears in an epidemic form, the influence of the atmosphere, on whatever that influence may depend, is so conjoined with the effects of the contagion supposed to originate from the human body, as to render it difficult to appropriate to each its exact share of operation.

Dr. Pearson makes no observations on the fatality of the disease, nor on the periods of life and states of body most liable to its severer forms. In an advertisement, he mentions his design of publishing a continuation of his remarks; and he intimates a wish to have the communications of other practitioners, for the purpose of annexing them to his own observations.

We must object to the liberty which the author takes, in his advertisement, of employing the plural number when speaking of himself: since this is a prerogative which, from long and undoubted prescription, WE alone, with the other potentates of the earth, may exercise and enjoy; and with which we deem it presumptuous in any individual to interfere.

Yell.

MISCELLANEOUS.

Art. 26. *The Tocsin of Social Life:* addressed to all Nations of the civilized World; in a Discovery of the Laws of Nature relative to human Existence. By John Stewart, the Traveller. 8vo. 2s. Ginger.

We shall not call on this traveller to declare whether it was in the Sibyl's grot, in Polypheme's cave, or in Cerberus's den, that he made the *wonderful* discovery, to which the Sovereigns of Europe are here required to attend: since, though promulgated as *new* light, it is only darkness some thousand years old. 'The important discovery is simply this:—that all bodies are in a perpetual state of transmutation, in composition or decomposition, that is, life and death; that nothing can be created, and nothing annihilated; that what is called identity,

identity, or individuality of mode, is nothing but a succession of matter and its powers; and that when the clue of that succession breaks, identity ceases, while its substance, or essential matter that formed it, revolves in dispersed particles or atoms into states of new successions of matter and its powers, or identities, in an endless course of transmutations, or circulations throughout the universe.'

How this doctrine is applied, ask us not, gentle reader, to explain; for the wild and rambling contents of this pamphlet baffle all review. In the address to Bonaparte, the author says that, 'the dead body in the tomb does not gravitate towards the coffin or the stones, but to the earth's centre, where it circulates in union and interchange of atoms with the whole mundane system.'

Our time is too precious to allow us to waste more of it on Mr. S. and *his* system. Mo-y.

Art. 27. *Thoughts on the Formation of the Earth.* By a Farmer.* 4to. 2s. 6d. Richardson. 1802.

This farmer has entered on a bold undertaking: but he discovers so much modesty and diffidence respecting its success, that we feel disposed to treat him with the utmost civility. His theory, suggested by partial appearances, and especially by the existence of petrifactions in sand-stone, &c. may be as good as some other theories. The facts, indeed, which he adduces, are no more new than the conclusion which he draws from them, viz. that the present islands and continents have been covered by the sea. Linné, in his *Reflections on the Study of Nature*, offers it as his decided opinion that the quantity of land is continually increasing, and that of the water decreasing; this writer, however, contends for the opposite doctrine, and urges the probability of the lands being again submerged in the ocean, and of fishes being a second time lords of this universe; yet he kindly consoles us by suggesting that this event 'might not happen for an hundred millions of centuries to come.'—Since all world-makers must be allowed to compare great things with small, the gentle reader will excuse this humble geologist for illustrating his remarks by the cooling of pitch, the baking of bread, and the congelation of soap. —He supposes that mercury constitutes a great part of the interior of the globe.—Towards the conclusion, he grows poetical, and evidently wishes to keep on civil terms with Moses: but we cannot say that, as our old friend Whitehurst promised the Bishop, *he makes Moses a greater man than ever he was.* Do

Art. 28. *The Soldier of Dierenstein*; or Love and Mercy. An Austrian Story. By H.S.H. the M. of A—. (the Margravine of Anspach.) 8vo. 3s. 6d. White.

This peculiar story is divided into 26 stanzas, and is told in the manner of Ossian, with elegance and pastoral simplicity.—It is humorously dedicated to the Austrian Eagle, who is invoked in its defence against the *talons* of the critic:—but why is the critic deemed a foe to merit? He is her friend, her champion eagle. Man.g

Art. 29. *An Essay on the Character and Doctrines of Socrates.* 4to. pp. 22. Printed at Oxford.

Whatever may be the merits of this essay with regard to *matter*, and it certainly has merit in that respect, in point of composition it is

* G. Matthews, of Dolgelly, Wales.

is very defective. The different parts do not unite in a connected and perspicuous manner, and the structure of the sentences is too often faulty and obscure. We advise the author to consult Blair's Lectures on Composition.

It may be collected from the preface, though it is not very distinctly expressed, that this essay was written in competition for a prize, and failed of success.

Man.

CORRESPONDENCE.

In answer to Mr. Montagu's polite letter, in reference to our account of his *Ornithological Dictionary*, (Rev. for February) we beg leave to assure him that nothing was farther from our intention than to impute to him any thing that could be construed into wilful neglect. Had we been aware that neither his own observation, (which we believe to be at once extensive and minute,) nor his private communications with his friend, Dr. Latham, could justify our expectation of his insertion of the articles to which we alluded, we should gladly have acted as his apologists. Their non-appearance in the Dictionary, even though unavoidable, may, in our apprehension, be expressed by *omission*, in the absolute sense of the term: though, at the same time, we are by no means disposed to cavil about words.

With Mr. Montagu, we acknowlege *generally* the fallibility of colour, especially of that of the plumage, as a test of specific distinctions; with him, too, we are averse from every unnecessary multiplication of species: but our remark relative to the *Ringed Plover* is founded on the constancy of the black bill and legs; and nothing short of a tolerably ample induction of particulars can convince us of the contrary. We wish not, however, to impose our assertions on either old or young ornithologists: nor can Mr. Montagu's favourite branch of natural history receive material injury, if, in the present instance, he should retain his belief, and we should retain ours.

Muir.

We are obliged by a *Constant Reader*'s communication of his Thoughts on the Slave-Trade, and his request for our farther remarks: but we despair of having any influence on this subject, and must refrain from extra-official digressions.

Our Cambro-British Correspondent *A. B.* is informed that our silence was not to be attributed to any of the reasons which he suggests, as the present Number will testify.

The letter from our friend at Fochabers was duly received, but we have not yet seen the publication to which it alludes.

The hint of *Brevis* shall not be overlooked: neither should this Gentleman forget the hurried nature of a periodical publication.

We cannot at present either verify or dispute the representation of *B. G.*, having mislaid the book concerning which he writes.

*** The APPENDIX to this Volume of the Review will be published with the Number for MAY.

Errs, p. 360, 377, 441, 443.

APPENDIX

TO THE

FORTIETH VOLUME

OF THE

MONTHLY REVIEW

ENLARGED.

FOREIGN LITERATURE.

ART. I. *Histoire du Canal du Midi*, &c.; *i. e.* History of the Canal of the South, formerly known under the Name of the Canal of Languedoc. By Fs. ANDREOSSY, General of Division, and Inspector-General of the Corps of Artillery. 8vo. pp. 412. Paris. 1800.

THE utility of canals is at present generally acknowleged, because experience has shewn that they form a mode of communication from one part of a country to another which is much cheaper than that of roads, and much more commodious and certain than that of rivers; especially if the latter be in the vicinity of mountains, and subject to torrents: since torrents not only prevent barges from ascending the river, but choak the channel with the matter which they wash down from the higher grounds, and not unfrequently destroy their banks and towing paths. On the contrary, in a canal which is skilfully constructed, there is neither a stream nor a rise of water, beyond certain points in its banks.

The ingenious and learned author of the present treatise, who is now known to our readers as ambassador from the French Republic to this country, first briefly and neatly states the advantages arising from the facility of interior communication, and then arranges canals in four classes; 1st, those which carry into the sea the water that is drained from marshes, of which kind is the canal that stretches along the Appian road, and receives the discharge of the drains made for the Pontine marshes; 2dly, canals of the same sort, but

on a higher level than the plains, the rivers, and the sea, such as the canals used in Holland; 3dly, those which are derived from rivers, such as the canals of the Brenta, of the Adda, and the Tesino, in Italy; and lastly, those which are carried over elevated ground, of which description are the *Canal du Centre*, formed on the mountains of antient Burgundy, and the Canal of the South. The third kind, M. ANDREOSSY observes, may be comprehended under the fourth, since canals of derivation (*canaux dérivés*) may be regarded as branches of canals made on high ground.

The canal of Languedoc, executed in the 17th century by MM. *Riquet* and *Andreossy* (the latter an ancestor of the present General), is one of those which passes over elevated ground. At a point called a point of departure, a quantity of water is collected from springs or rivers, and thence suffered to flow in canals cut on two different slopes. Sluices sustain the water on these sloping grounds, and aqueducts afford a passage to superfluous and irregular waters. This sort of canals serves equally for the purposes of irrigation and navigation.

In many instances, the point of departure may be fixed without great difficulty: but the determination of it in the case of the canal of Languedoc was not easy. An intimate acquaintance with the topography of the country lying between the ocean and the Mediterranean was requisite; or, in other words, a knowlege of the courses of small streams and rivers, since they with certainty indicate the form of a country:

'Water (says M. ANDREOSSY) being subject to the operation of invariable principles, viz. gravitation, and the constant mobility of its parts, must proceed from its source in the route pointed out by the declivity of the ground; or must overcome the obstacles which prevent it from following those particular and general inclinations, that are favourable to its flowing towards the principal reservoirs, or towards the sea. Thus the course of waters gives the figure of the ground; and from this indication also, we shall be able to judge of the topography of the same ground, and of various accidental circumstances.'

Proceeding on the same route which probably his ancestor pursued in order to fix on the point of departure, M. ANDREOSSY examines, according to the foregoing notions, the nature of the ground lying between the Mediterranean and the ocean. From this investigation, it appears that Naurouse is the proper point of departure; and that from this point the ground slopes off towards the Garonne, which runs into the ocean, and towards the Aude, which takes its course to the Mediterranean.

When

When the point of departure is ascertained, much is accomplished, but many difficulties still remain. This point, the highest in the whole of the canal, must be furnished with water, and in such abundance that almost the whole of the canal may be thence supplied: because, although from a certain spot the communication might sometimes be easily made between the two seas, by descending along two rivers that have courses down two inclined planes; yet many objections lie against the attempt to form a public and active navigation on such rivers, when situated near high lands:—they are subject to sudden increase from rain, and are liable to much decrease or even to be dry in the middle of summer. Hence, in a perfect inland navigation, rivers are to be avoided, and canals are to be cut in their direction.

In fixing on the point of departure, we should have mentioned that, provided it be above the level of the canal, it ought to be as low as possible, in order to avoid the multiplication of locks and sluices.—Naurouse being chosen for this purpose, it appeared that a supply of water might be procured from rivers and springs, by turning the beds of the former, and conducting the latter to the proper points by artificial canals: the great constructor of the work then directed his attention to the Black Mountain (*Montagne Noire*), and there found sufficient supplies of water. This mountain, at the place at which it terminates, pours out streams in several directions; and consequently, in the space of a semicircle of inconsiderable radius, it presents the near approach of the origin of the course of many natural waters. It is also covered with excellent forests, and contains many resources from which great advantages may be derived.

'We cannot (says the author) stand at this culminating point, without experiencing admiration and respect; and without sympathizing with that enthusiasm which in 1786 dictated to a young and learned naturalist those animated reflections, which could originate only in an elevated mind, capable of comprehending and of appreciating great ideas. The common granite is the constant and only basis of the Black Mountain; it always shews itself there under the same appearances; and it forms only low and flat hills, remaining buried under a surface of earth which produces the oak and the broom. In this sterile and monotonous country, no plant excites the attention of the Naturalist, no irregularity strikes the eye, no grand feature of Nature takes possession of the senses nor awakens the imagination: but it is stamped with the genius of the author of the canal, and we cannot take a step without strong emotions and warm admiration. Here the observer is placed, if I may so express myself, before the origin and cause of the canal of Languedoc: he discovers its mechanism, and he holds its key. The project of the

engineer of this grand work here easily explains itself, and the simplicity of the means exceeds the boldness of the undertaking. In other parts, it seems an effort of art constraining Nature: for there, art surpasses Nature by simply imitating her. A *narrow and tortuous channel, and two lakes of moderate size*, are the simple means that form and maintain, from one sea to the other, a factitious river; the waters of which, kept up and (as it were) suspended at will, can never deceive the expectation of the merchant, nor destroy the hopes of the cultivator.'

In this mountain, the engineer raised a mound; which, stopping the torrent, turned its water into a channel, called the channel or canal of the mountain (*rigole de la montagne*), and which canal receives the waters of four rivers. It is cut along a bed of granite to the mountain of Campmase, through which a tunnel is formed; and the waters, issuing thence, precipitate themselves into the bed of the river Laudot, and follow the course of that stream to the grand reservoir of St. Ferriol. A second channel, called the canal or channel of the plain, commences at Pont Crouzet, receives the waters of the Sor, and joins the canal cut from the reservoir of St. Ferriol at the Hamlet of Thomases: from which point, the waters are conducted along a valley to Naurouse.

At the conflux of the two canals, machinery is erected to keep the water at its proper height, and to discharge any that is superfluous and irregular.

The length of the canals, from the river Alzau, (where the canal of the mountain begins,) is 30,060 toises, or about 34 miles.

One of the greatest works belonging to the canal of Languedoc is the reservoir of St. Ferriol; which was effected by throwing a bar across the valley of the Laudot. Its shape is that of a scalene triangle, the shortest side being formed by the bar or dike across the valley. The length of the reservoir is 800 toises (1600 yards), its breadth near the dike 400 toises, and its greatest depth 99 feet.—The bason of Lampy, another reservoir, is of very inferior dimensions.—M. Andreossy has given a clear and full description of each.

We should far exceed our limits, were we to follow this philosophical author along the two branches of the canal, and examine with him the various expedients and machinery which have been employed for the use and safety of this vast work. It appears to be, according to what he says, a *chef d'œuvre* of the hydraulic art, and reflects infinite honour on the knowlege, the sagacity, and the intellectual boldness of its original projector.—It may not be altogether useless, however, to state the author's division of his treatise, and some of the historical particulars.

In

In the first chapter, the project of the canal of the South is considered as deduced from the direction of the waters of the country; and a general view of the canal is taken, from the point of departure to its extreme points. In the second, is considered its connexion with maritime and other lakes in its vicinity. Chapter 3d contains an analysis of the works of art constructed on the canal. Chapter 4th compares the product and consumption of its waters. In chapter 5th, are considered the means of augmenting its quantity of water. Chapter 6th treats of the management of this canal. Chapter 7th and last contains a discussion respecting the real author of the project, and the construction of the canal; and this section is intitled to particular notice, because it is probable that the present publication originated in the author's desire of vindicating the fame of his ancestor *F. Andreossy*.

The undertaker of, or contractor for, the canal of Languedoc was undoubtedly *Paul Riquet*; and he obtained the profits which accrued from its execution. His family being enriched and ennobled by it, and his name frequently connected with the mention of the canal, in conversation, and in public acts, to him also the glory of the project and the plan has been transferred: but the real author, in all that regards its design and plan, was *François Andreossy*. This ingenious man was born at Paris in 1633, where he studied the mathematics; but, having subsequently retired from the metropolis to Languedoc, he quitted Narbonne for Italy in the year 1660; through which country he travelled in order to acquire greater knowlège of the hydraulic art.

'Rich with the information which he had acquired, (says the present author,) *F. Andreossy*, on his return to Languedoc in the same year, communicated to *Riquet* his project for the canal, gained his approbation of it, and induced him to obtain the sanction of the minister *Colbert*. In order, however, to make it agreeable to Louis the Fourteenth, the minister required that the Chevalier *Clerville*, commissary-general of the fortifications, who possessed much credit at court, should present the plan and manifest its utility. It rarely happens that men, who are raised to those eminent places which call for the exclusive confidence of government, sufficiently divest themselves of self-love, to give weight and worth to projects that do not belong to them, but of which, from their situation, people would think they ought to have been the authors. *Clerville* repaired to Languedoc, saw *Andreossy*, and accompanied him to all the places through which it was intended that the canal should pass; and the latter, with the unsuspecting confidence of youth, disclosed his project. *Clerville* demanded a copy of it, and employed him to draw up an estimate of the expence. His labours terminated in 1664, were confided in the following year to the Commissary-general, and enabled him to form his first estimate of 1666, which he presented to the king, without mentioning either the author of the project or M. *Riquet*.'

Clerville being a man of power and credit, *F. Andreossy* was under the necessity of keeping terms with him; and, some difficulties having arisen concerning the execution of the plan, he formed a new project more extensive than the first; and which would have been secure from all blame and criticism, had not *Riquet* desired him to make the canal pass through Beziers; where, according to the proper expression of our author, *he happened to be born.*

Colbert still insisted that the plan, &c. should pass through the hands of the Chevalier *Clerville*; and *Andreossy* was now convinced that, if he intrusted it to him, the honour of the work when performed would be reserved for the Commissary-general, the project for the contractor, and that his lot would be the fatigue of the execution, after having first demonstrated its possibility. What was to be done? In imitation of the statuary, who mutilated one of his most exquisite performances in order to have an opportunity of afterward demonstrating that he had executed it, *Andreossy* split his project;—he made known only the first part, and left the second, according to his own expression, to the *prudence* and *knowlege of the Chevalier de Clerville.* The Commissary-general, thus abandoned to his own resources, surveyed the ground, and presented a plan, a miserable one, which proved him to be ignorant of the first principles of navigable canals.

Having acquired some partisans at court, *Riquet* accepted the clauses contained in the estimate of M. *Clerville*, with the express condition *that he might change the route of the canal, during its execution, if he thought it necessary.* The point was now gained, the project of *Clerville* fell to the ground, the whole plan of *Andreossy* was put in execution, and the canal of Languedoc, the admiration of Europe, was constructed. *Riquet* died in 1680, before the canal was completed; and his coadjutor directed its construction till the day of his death, which happened on the 3d of June 1688. It appears that this event was accelerated by chagrin. The family of *Riquet*, having suddenly arrived at wealth and distinction through the genius and labours of a foreigner *, felt the burthen of gratitude too heavy for them, and threw it entirely from their shoulders; and *Andreossy*, neglected and forgotten, saw the phantom of renown disappear, and tasted not the fruit of thirty years of meditation and labour.

To prove that *Andreossy* was really the projector and author of the junction between the ocean and the Mediterranean, the writer of this volume has brought forwards several documents and testimonies; the most important of which, in our opinion,

* *Andreossy*'s father was a Senator of Lucca, in Italy.

is

is the "Extract from the memoirs concerning the construction of the royal canal of communication between the two seas, in Languedoc, by *F. Andreossy*, 1675." This piece bears strong internal evidence of *Andreossy* being the author of the project; he speaks as if the fact never had been doubted, nor was likely to be doubted; and the General vouches for the authenticity of these memoirs, which are in manuscript. A second strong proof is contained in his epistle dedicatory of the chart of the junction of the two seas to Louis XIV.; which was published in 1669, eleven years before the death of *Riquet*, who never openly contradicted any statement of this chart, in which *Andreossy* plainly speaks of himself as the original projector of the canal.—In support of the same opinion, many other authorities are quoted, and some contradictory evidences controverted; and we think that, if the whole matter be fairly weighed and examined, the General must be allowed to have made out his point.

The faculty of judging and of adopting is more common, and of a lower order, than the power of inventing: yet, if the first praise be due to *Andreossy*, we must applaud and admire the acuteness, judgment, and zeal, which *Riquet* exhibited in comprehending and fostering the vast plan of the canal of Languedoc. He seems to have been well described by his coadjutor *Andreossy*;—"Although endowed with a penetrating and active mind, which quickly determined in favour of any thing that was true, his very advanced age, and his education which was totally adverse to any thing that could be called science, for ever prevented him from being the original institutor of a great undertaking: but there remained to him the sweet and tranquil pleasure of being useful to his country; and in this hope it was that he exerted all his power, and risked his whole fortune, for the success of a project in which every one had hitherto been baffled."

A perusal of the present treatise, we think and hope, has added to our stock of information: not so much by its mere enumeration of facts and detail of particular circumstances, as by the comprehensive views, sage maxims, and philosophical truths, with which the writer has variegated and enriched it. It has also afforded considerable entertainment, although several of the particulars are to us uninteresting: not that such particulars are useless, for whoever would survey and understand the great work of *F. Andreossy*, in all its several contrivances, artifices, and machines, ought to carry in his hand this publication of his descendant and namesake. The volume, in its statement of facts, we presume to be accurate: in its general style and fabrication, it bears testimony to the clear, learned, and enlightened mind of its author.

ART. II. *Mémoires sur l'Egypte*, &c.; *i. e.* Memoirs concerning Egypt.

[*Article concluded from the last Appendix.*]

IN resuming our account of this work, and turning our attention to the 4th volume, we are first presented with a summary of the labours of the Institute, and then arrive at a memoir intitled *General Considerations on the Agriculture of Egypt, and on the ameliorations of which it is susceptible.* By M. L. REYNIER.—This interesting and amusing paper descants on the Physical State of Egypt, its Soil, Atmosphere, Political State, Usual Modes of Culture, General Culture of the inundated Lands, of those which are artificially irrigated, the Course of Crops, Exportation, the Extension of which certain Branches of Culture are capable, the Degeneration of Plants in Egypt on Trees, and their Influence on the Fertility of the Country. We cannot be expected to comment on all these particulars: but, from the abilities of the author, and his solicitude to obtain accurate information, they may be deemed worthy of notice. Nothing in Europe resembles the physical constitution of Egypt; the upper part of which may be described as a long valley from four leagues to one wide, surrounded by deserts, and with a river traversing it longitudinally, subject to periodical overflowings. Rain scarcely ever falls in Egypt. Cairo is seldom visited by more than four or five showers in a year, which rarely last more than two hours, and are unaccompanied by thunder. In Upper Egypt, only one or at most two showers occur during the year: but in those parts which border on the sea, such as Alexandria and Damietta, rains are more frequent. The inundations supply the place of rain; which, so far from being anxiously desired by the Egyptian farmer, is deprecated as an evil. It is a general opinion that showers are prejudicial to the corn, by encouraging the growth of weeds; and the observations of the author incline him to believe this notion to be not altogether unfounded. Of the winds of Egypt, we extract the following account:

'The winds are tolerably regular during the months of May. June, July, and August; generally blowing, almost without any intermission, from the North, and from North to East. During the day, this wind blows with a sky unobscured by a cloud, or even by the least haziness: but, as soon as the sun is set, and the atmosphere has cooled, the clouds condense and roll with great velocity from N. to S. till the following morning after the rising of the sun, when the heat rarefies them again. The decrease of the Nile, which happens generally every year in the month of October, is accompanied by intermitting winds, from the N., with intervals of calms; and owing to those calms the decrease becomes irregular, because, the N. wind

wind blowing against the torrent and keeping it back, the fall is thus obstructed, and assumes at times the appearance of a tempestuous swell; while the calms and some light airs from the S.E. aid the decrease of the river by the pressure of its waters on those of the sea. The winds are variable during the winter months: the atmosphere is free from clouds; nothing impedes the influence of the sun beams; and vegetation, then in its full vigour, absorbs all evaporations; so that, excepting the abundant dews and some occasional mists which prevail in the morning, nothing obstructs the transparency of the air.

'The country changes its appearance at the approach of the vernal Equinox: the burning S winds then begin to blow: but, fortunately, they seldom last above three days, and some intervals of calm diminish their destructive effects.'

The author greatly laments that he had not an hygrometer to ascertain the degree of dryness, nor an electrometer to measure the electrical state of the atmosphere. Deprived of those instruments,—for to our surprize he says, (but can it be a fact?) that none of the literati who went to Egypt had taken any with them,—he can offer only some general observations on the effects of this wind; and he refers the reader to the frightful description given of it by Bruce, in the narrative of his return to Egypt through the Desert. He adds that he has often noticed the same symptoms, particularly once at midnight, with M. *Nectoux*; and though such events occur but seldom, yet on that day branches of the sycamore, at least two feet in diameter, were wrested off and split in pieces; and the atmosphere, inflamed to a burning red appearance, reminded them of the terrible scenes of the Desert.

'As soon as this South wind (which is called *Khamsin* in Egypt, *Sameil* in Arabia, and *Seimoun* (poison) in the Desert,) begins to blow, the atmosphere becomes cloudy. Sometimes it is coloured by a purple tint, more or less vivid; the elasticity of the air ceases, and is followed by a dry and burning heat, accompanied by whirlwinds, which succeed one another at intervals.—This state of the atmosphere seldom lasts above three days: when the wind blows but slightly, it causes a general indisposition in all animated beings: but it occasions serious illness, and even death, if its intensity increases. This was the case at the time of the siege of Cairo, after the battle of Héliopolis, when a caravan, going to Suez, lost almost all its horses and camels; and not long ago, prior to the convention of Gizeh, several camels, carrying various articles to the citadel, perished before their arrival. The army met with numberless cases of this nature in Upper Egypt. Vegetables suffer even more than animals from this wind: the first gusts of which always bring on the hour of maturity, or rather of desiccation: which takes place without altering the state of the ~~grain~~ if it happens when the ~~corn~~ is nearly ripe, and then the harvest is good: but whenever these gusts come

corn/grain

come before the vegetation of the corn is complete, a premature dryness is the consequence; and the produce of the harvest is often diminished two thirds. This plague not only dries up the annual plants before the natural period of their maturity, but whole acres of sugar canes are frequently burned up by it, notwithstanding the constant application of water.'

The author concludes this paper with recommending the plantation of trees in Egypt; observing that the present want of wood, even for farming implements, obstructs the improvement of the country.

Of the Caravans which arrive in Egypt from the Kingdom of Darfûr: with an Account of the Places through which they pass, and of the Trade in Slaves and other valuable Merchandise. By M. J. LAPANOUSE.—The interesting nature of these caravans, their discipline, order of march, encampment, and mode of defence against the plundering Arabs, are here detailed; and the various caravans which arrive in Egypt from different countries are enumerated. The most considerable, however, is that of Darfûr; which is sometimes composed, according to this memoir, of 12,000 slaves and 15,000 camels carrying a prodigious quantity of merchandise: but compare a former memoir, Rev. Vol. xxxix. p. 520. Among the articles of commerce not specified in that paper, is the seed of a plant (*Schismé*) employed in the cure of the ophthalmia and other diseases. Of the camels, one third of the number is generally assigned for the conveyance of water, one fourth for the provisions, and only one eighth for the merchandise. An itinerary is subjoined of the route from Darfûr, which passes through a place called *Selima*, from its having the vestiges, as it is said, of a palace of the greatest antiquity, once belonging to Selima, Pharaoh's daughter: but M. LAPANOUSE very shrewdly remarks that he could not conjecture the motive which could induce this princess to isolate herself on a spot so distant from Cairo, the usual residence of the sovereigns.

Duties are imposed by government on the caravans; 4 sequins (17 liv. 2 sols. 9 den. $\frac{2}{5}$) are paid for each slave, and 2 sequins (8l. 11s. 4d. $\frac{9}{14}$) for each camel. The cachef has also a right to 9 medins (6 sous, 5 den. $\frac{3}{7}$) for each slave, and 4 medins (2s. 10 den. $\frac{1}{7}$) for each camel.

Memoir on the Caravans coming from the Kingdom of Sennâr, and on their Route; with an explanatory Detail of the several Objects of Commerce which they carry, and a topographical Account of that Country and its Government. By the Same.—Sennâr is bounded by Darfûr on the west, by Abyssinia on the south, and on the east by the Red Sea. The caravans are not so considerable as those which come from Darfûr; consisting of only 4 or 500 camels.

camels: but the articles of commerce brought by the two caravans are nearly the same. If the slaves from Sennâr, however, are fewer in number, they are more esteemed; they are of two kinds, viz. Black, and Mulattoes of a copper colour, which are superior in form and features to the Negroes. A succinct history is given of each article of commerce; and a description of the hunting of the Elephant, of the Ostrich, of the Hippopotamus, and of the Civet, is to be found under the heads, Elephants' teeth, Ostrich feathers, Leather for shields, and Musk.

Memoir on the Trade in Negroes at Cairo, and on the Maladies to which they are subject on their Arrival. By M. Louis Frank, Physician to the Army of the East.—Certain particulars of the inhuman treatment of Negroe slaves are detailed in this paper, which delicacy prohibits us from transcribing. From these we turn with disgust and horror, to smile at accounts of Negroes who are Anthropophagi, and are known (how would Lord Monboddo have rejoiced at the discovery, had he been alive!) by a little tail or prolongation of the *os coccygis*, which Ghellabis, or slave-dealers, extirpate whenever they discover it. What a pity it is that this curious report wants confirmation!—The diseases to which Negroes are subject are, catarrhs, ophthalmies, small-pox, diarrhæas, dysenteries, the plague, the dracunculi or guinea worm, and the lues; which last they are said to bring from their own country.

Memoir on the Plague observed in Egypt during the Years 7, 8, and 9. By M. Güetan Sotira, Physician to the Army.—After some preliminary though irrelevant remarks, the following questions are proposed for examination: What is the plague? What is its origin? What methods are to be taken to cure or prevent this evil?—As the author adduces the result of experience to elucidate these important inquiries, his memoir merits the perusal of the medical profession. Passing the first two queries, we shall concisely notice the answer to the last. M. Sotira frankly owns that he is acquainted with no specific remedy for this dreadful malady: but he informs us that General *Menou* and another Frenchman were cured by taking, every quarter of an hour, 20 drops of Hoffmann's mineral anodyne liquor, on feeling the first symptoms of attack. Bleeding is recommended under certain circumstances: but the oily friction so much extolled by the English Consul, Mr. Baldwin, is reprobated. To those who were in a weak state, wine, in small doses often repeated, was found singularly beneficial: but in prescribing camphor, opium, and sal ammoniac mixed together, the author found his mistake. In the rules for guarding against infection, nothing very new occurs.

Extract

Extract from the Journal of General VIAL *during the Campaign in Syria in the 7th Year.*—We have here an account of *Sour* (the antient Tyre) and its vicinity, in which General VIAL compliments the accuracy of *Volney*'s description of this region.

Memoir on the antient Limits of the Red Sea, and on certain Parts of the Isthmus of Suez and of the Valley of Egarement. By M. DUBOIS AYMÉ, Engineer.—This paper, which is judiciously illustrated by an annexed chart, should have followed that of M. GERARD inserted in vol. iii. To the north of Suez, the author discovered what he supposes to be the remains of the antient canal which united the Red Sea with the Nile.—Part of this memoir is employed in illustrating the geography of the Pentateuch. M. AYMÉ is led to conclude that Suez occupies the site of the antient Arsinoë;—from the distance of the ruins of Aboukéchid from Clysma, which was on the same shore with Arsinoë, he infers that this must have been the city of Hieropolis;—and as the Septuagint in Gen. iv. 6. 28, substitutes Ηρώων πολιν for the proper name *Goshen*, and γῆν Ραμεσσῆ for "the land of Goshen," he takes it for granted that this country, which the Israelites occupied in Egypt, could be no other than what is now called the Valley of Sebabiahr. The next object is to ascertain the route which the Israelites pursued in quitting Egypt; a task which he undertakes; and he is confident that the passage of the Red Sea must have been near to Suez, where it is fordable at low water, and where all that is recorded to have happened on this spot, in the book of Exodus, might have taken place by natural means, without the intervention of a miracle.

Meteorological Observations made at Cairo during the first six Months of the Year 9. By M. NOUET.

Necrological Tables of Cairo, including Old Cairo and Boulac, during the Years 7, 8, and 9. By M. R. DESGENETTES.

The former of these papers gives the height of the mercury every day at sun-rise in Reaumur's thermometer; and the latter contains monthly tables of mortality at Cairo. The return is not complete: but, in the general table, the deaths for the year 7 are given at 5263, for the year 8 at 5895, and for the year 9 at 9854.

Memoir on the Physical and Medical Topography of Malta, followed by a History of the Maladies which prevailed among the French Troops in that City, towards the End of the Year 6, *and during the Years* 7 *and* 8. By M. ROBERT, Chief Physician to the Military Hospitals at Cairo.—M. ROBERT sailed with *Bonaparte* from Toulon, was left with the French troops at Malta on its surrender

surrender to the French, and continued there during the whole of the siege and blockade by our forces. His opportunities for observation, therefore, were considerable; and the composition of this medical report formed his amusement during the siege. It is divided into two parts, each containing several sections.—Part 1. includes a description of the island and city of Malta, the influence of general physical causes on health, the consideration of those complaints which arise from the climate of Malta, with their treatment, and the causes of the salubrity and insalubrity of the city of Malta. In this last section, we find a description of the hospital of Malta, on which the highest praise is bestowed for order, cleanliness, and attention to the patients. All the vessels, we are told, were of silver.—Part 2. contains a history of diseases, compiled from the author's official journal. To the table of mortality is subjoined, under the head of reflections, the following information;—that in less than two years, 521 died out of 3,521 sick persons; 300 of them with the scurvy, and the rest with consumptions and diarrhœas:—that in the two years of the blockade, each sick person received one ounce of beef or mutton daily during the first year; the same quantity of the flesh of the horse, ass, or mule, during the second; and that the other food was rice, French beans, fish, and eggs, but that the latter, as well as wine, were very scarce. These particulars are stated to account for the great mortality.

The memoirs in this work ought to have been better arranged; and those which relate to the same subject should have been printed together. We suppose, however, that eagerness to communicate them to the public superseded the niceties of editorship. Mo-y.

Art. III. *Traité des Maladies Goutteuses; i. e.* A Treatise on Gouty Disorders. By P. J. Barthez. 8vo. 2 Vols. Paris. 1802. Imported by De Boffe, London. Price 14s. sewed.

As this work comes from an author of celebrity, we have perused it with attention, and with an earnest desire to participate in the new views of theory and practice which are liberally promised in the preface. Our expectations have not, indeed, been fully gratified: but we must acknowlege that the collection of facts is copious, and that some new, bold, and decisive modes of practice are recommended, which will require the sanction of undoubted experience before they can be generally adopted.

The size of Dr. Barthez's dissertation is considerably increased in consequence of his having comprehended rheumatism among gouty complaints: which we are inclined to think

think was incorrect; and we should almost have doubted whether the author had formed a very precise idea of the nature of Gout, if he had not displayed, in the course of his treatise, an acquaintance with all its phænomena. The developement of the general plan of the work is incumbered with many repetitions; and Dr. B. has assumed the existence of some principles which will not be readily admitted by English physicians. He supposes, for example, a principle which retains the muscular parts in their appropriate situation; or, as he denominates it, *situation fixée*, independently of the power of irritability. Such theories add much to the weight of our shelves, and nothing to our knowlege of nature.

In conformity with this style of reasoning, Dr. B. places the proximate cause of the Gout in a *specific gouty state* of the habit; a dogma which he professes to have found very useful in directing his practice, but from which we cannot deduce one applicable conclusion. We are rather disposed to join with Dr. Cullen, in reprobating the employment of the term specific, either in pathology or therapeutics, excepting when it is used instead of characteristic. The present author has indeed attempted to support his doctrine of specific disease, by citing the specific efficacy of some remedies for Gout, among which he particularizes aconite. He informs us that he has given great relief by small doses of this substance, in gouty and rheumatic cases; and gladly would we record that the opprobrium of medicine was thus removed: but we fear that these favourable reports do not correspond with general experience. Dr. B., however, concludes this part of the subject by asserting that 'the specific state of gouty affection is thus proved by the *singular success* of specific remedies.' If this be correct, we must allow that they manage THESE THINGS better in France;—for too surely we cannot cure gout in England.

We proceed, therefore, with all humility, to Dr. BARTHEZ's explanation of the gouty state of the blood; and we learn it to be, 'a vice in its mixture, which prevents, in different degrees, the natural formation of its excrementitious humours; so that these humours, being more or less altered, undergo a spontaneous decomposition, which causes the earthy substance to predominate in them.' We are not conscious of having derived much additional knowlege of Gout, from this laboured definition. The author has insisted, at some length, on the discharge of calcareous matter which has been observed to take place through different emunctories, previous to an attack of gout: but the old theories of arthritic acrimony were founded on similar appearances, and were justly rejected on

the decay of the humoral pathology. If gouty paroxysms depended on the evolution of calcareous matter, they would be relieved by its discharge; which does not appear to be the case from Dr. B.'s own statements, since he observes that the calcareous evacuation sometimes precedes a fit of gout. Greater attention is due to an observation of M. *Berthollet*, introduced by the author, that the quantity of phosphoric acid, contained in the urine of persons subject to gout, is less than natural during the intervals of the disease, and increases on the accession of the paroxysm.

In addition to the causes of Gout already enumerated, M. BARTHEZ deems it necessary to add debility in the parts subject to gouty attacks; and these parts, he says, are the periosteum, the capsular ligaments, and the insertions of the tendons in the bones of the extremities. Then, finding that fatigue produces debility, he proceeds to shew that, of all the limbs, the feet,—and, of all parts of the feet, the great toes,—are most harassed, and sustain the most pressure. He then endeavours to account for the particular symptoms of regular gout, on the old theory of the deposition of gouty matter in the articulations; a theory so completely exploded in this country, that we shall not occupy the reader's time with objections to it. We feel ourselves the more warranted in passing over this portion of the work, because we do not perceive that the author's *specific* opinion has led him to the adoption of any new mode of practice. His directions for the management of patients, on the accession of regular gout, are judicious: but they differ in some respects from the plan followed by the most respectable physicians of the present day. From this observation we except only the writings of the venerable Dr. Heberden, which we have lately had occasion to review *, in which he proposed the bold idea of cutting short the gouty paroxysm by powerful topical applications. Dr. BARTHEZ advises the free application of leeches to the gouty swelling; and he hints that the effect of this remedy will be found very decided and extensive, if the evacuations be sufficiently large, and frequently repeated.

Diaphoretics are also recommended during the paroxysm: but purgatives, he thinks, should be cautiously employed. The efficacy of cold water, used as common drink, in mitigating the pain of the fit, is admitted, with proper restrictions.

The practice of applying cold water to the inflamed part, which we quoted on Dr. Harvey's authority from Dr. Heber-

* See M. R. for January last.

den's

den's Commentaries, is here justified bythe recommendation of Hippocrates, Galen, and other eminent writers. Dr. B. has also mentioned a case of this nature, which we shall relate, as deserving the reader's attention.—In an attack of the gout, M. *Loubet*, having his feet affected with an erysipelatous inflammation and extreme pain, determined to put his lower extremities into cold water, where he retained them for some time. After having them wiped, he went to bed, and fell into a sound sleep. He awaked in a profuse perspiration, which continued fifteen hours; and on the succeeding day he found himself perfectly freed from pain and lameness.—The author observes, very judiciously, that this remedy can prove useful only after the gouty inflammation and swelling have been completely formed; and that it may produce great danger, if it be applied while the determination to the joint is taking place. We shall leave our readers to compare these suggestions with the practice of Harvey; with merely this additional observation, that our most cautious practitioners cannot have a more formidable idea of cold bathing in the gout, than the whole faculty entertained thirty years ago respecting the cold bath in fevers, which is now admitted as an established remedy of superior efficacy.

The tepid-bath and vapour-bath are here mentioned as powerful means of relief in advanced stages of the paroxysm. The external application of opium, with the view of moderating pain, is strongly condemned, from experience: the internal use of this medicine ought to be confined, according to the author, to cases of extreme watchfulness; and he recommends it to be joined with diaphoretics, particularly in the form of Dover's powder. This class of remedies is directed to remove the pain of a gouty paroxysm; and the author next adverts to the symptomatic fever, which he says was first well described by Dr. Gray. According to Dr. B. it has seven exacerbations, and observes somewhat of a tertian type. He regards it as depuratory; and we are again incumbered with obsolete theories, where we could have wished to see the author's own vigorous sense exerted in the observation of facts. The directions which he has compiled for the treatment of this fever, however, are useful; and, allowing for the usualdifferences between English and French practice, they are judicious.

The writer next discusses gouty paroxysms irregularly prolonged. He treats copiously of the use of purgatives in this state of the complaint, and justly condemns the use of drastic purges inculcated by the old writers. He recommends diaphoretics, particularly sulphur; which idea will not be new to many of our medical readers, who must be acquainted with the effect of sulphur-whey in moderating gouty pains. Sti-

mulating diuretics are also said to possess considerable power, in this stage of the disease; and among these, the burdock, *immortalized* in this country by Dr. Hill, is much praised,—but surely with little reason.—Other remedies are mentioned as alteratives, which seem to be of very doubtful efficacy. Those which Dr. BARTHEZ distinguishes as specifics in gout are, cicuta, belladonna, and especially aconite. Several cases are mentioned to this effect: but they are not sufficiently numerous to produce conviction. These medicines have not been overlooked by practitioners in this country, but their power has never yet been established.

Soap is also recommended internally, and the *saponaria* in course; which, the Doctor adds, however, is both a diuretic and diaphoretic. Seneka is also mentioned in high terms of approbation. It is evident that the power of these medicines is chiefly referred to their property as stimulants.

In treating of stimulating topical applications to joints affected with gout irregularly prolonged, blisters and rubifacients are indicated. Peruvian bark, and chalybeates, are directed to remove the debility in which these attacks leave the patient. Many observations are added, respecting the treatment of topical disorders produced by the gout, but we find nothing particularly interesting in them.—Warm water, applied externally, in the form of different mineral waters, appears to be the principal remedy for these inconveniences.

We then proceed to a chapter on the prevention of the return of gouty paroxysms. Besides the usual cautions concerning regimen, the use of the cold bath is enjoined.

Dr. BARTHEZ recommends a sparing use of animal food, and abstinence from wine, as the principal means of prevention. His remarks on milk diet are very judicious: but, from the restrictions with which he combines them, they can hardly find a place here. He is an enemy to the extreme of low diet; and he very properly directs that particular regard should be paid to the age and habit of the patient, and to the sensible effects of his regimen.

Respecting the use of remedies, to prevent the return of gout, he observes that, in plethoric habits, bleeding at stated times has been found a preservative. He acknowleges, however, that blood-letting at the approach of gout has proved fatal. Scarification, or leeches, he supposes to be very safe means of prevention, as well as issues.—The necessity of obviating costiveness is duly inculcated.

Under the head of bitters and aromatics which may be employed to prevent the return of gout, as well as in other parts of the book, Dr. B. has perhaps paid too much regard to

some names, no longer considered as authorities: his general ideas, however, are good.

In discussing the use of stomachic medicines as preventives, the author mentions the composition known in this country by the name of the Portland-powder; and, in the Paris Dispensary, by that of the *pulvis arthriticus*. He seems to impute the same bad effects to it, which Dr. Cullen mentions: but he adds that Boerhaave had observed a power in the *aristolochia rotunda*, of shortening the gout. He warns the patient against a long-continued use of any kind of bitters.

Several observations follow, respecting the consecutive gout, or the symptoms occasionally produced after gout in the articulations. In some complications, which the author has noticed, he will probably be thought to have attributed rather too much influence to gout. He supposes the venereal disease to produce a species of gout, peculiarly marked by those symptoms which we term nervous; and for this he recommends aconite as a remedy, in conjunction with sudorifics.

In the second Book, Dr. B. treats of rheumatism; and he remarks very justly, among other diagnostics, that the seat of rheumatism is in the muscles, or tendinous aponeuroses. In this part of the work, however, we meet with less interesting matter than in the former. The history of the disease is indeed clear and comprehensive: but it has been too well recited by former writers to leave any other merit for an author of the present day, than that of exact and judicious compilation.

Dr. B. explains the peculiar nature of rheumatic inflammation, by recurring to the *force of fixed situation* in the muscles affected. This notion does not contribute much to relieve perplexity.—In treating of the inflammatory crust of the blood drawn in this disease, he does not appear to be acquainted with Mr. Hewson's experiments; and his theory of the phænomenon is very unsatisfactory.

When the author mentions blood-letting, as a principal remedy in acute rheumatism, we were surprized to find him directing that it should be at first *revulsive*, and afterward *derivative*: for we had supposed that the French physicians had dropped these ridiculous distinctions. After venesections, he properly recommends purgatives and diaphoretics. In the advanced stages of the disease, he has found the junction of opium with camphor extremely useful: he mentions, also, with due praise, Dover's powder; and he recommends a formula, from the *Pharmacopœia Pauperum* of Prague, in which opium is combined with emetic tartar, and the root of wild valerian.

Dr. B. seems inclined to give stimulating sudorifics, such as the tincture of guaiacum, in acute rheumatism, on the authority

thority of Lobb and some other writers. We do not find, in this part, any reference to the practice of giving Peruvian bark in acute rheumatism, which has been pursued for several years by eminent medical men in London.—The multitude of quotations which the author makes in every chapter, and the analyses of practical works which he often introduces, render it very difficult to give a complete view of his opinions on this subject.

Respecting the cure of chronic rheumatism, M. BARTHEZ is materially less decided than we expected. He mentions the balsam of guaiacum as a *promising* remedy, and speaks of Dover's powder and the junction of calomel with opium, as remedies which *have been used with success in London.* We have had more than one occasion for observing, with regret, that the French nation is very imperfectly acquainted with the real state of our literature; and this deficiency appears on the present occasion very remarkably: since the modes of practice, to which we allude, have been generally established in this country for many years past.

The Doctor has, however, made some compensation in his account of the efficacy of mercurial frictions in chronic rheumatism, the use of which he has traced to the original writers.

Peruvian bark and cold bathing are advised, to prevent relapses; in which we agree with the author: but we cannot join in his encomium on aconite, belladonna, cicuta, and other plants of similar properties.

In treating of the topical remedies of acute rheumatism, we are told that the camphorated oil is preferable to the camphorated spirit: but we apprehend that a solution of camphor in spirit of turpentine, or in ether, is greatly superior in power to both.—We cannot pretend to follow Dr. B. through his accumulated list of topical remedies; nor, indeed, do we deem it necessary, because most of them are recommended on the credit of well-known authors, and little is advanced on this writer's own authority. Perhaps, if the mass of evidence were carefully analysed, it would appear that guaiacum, Dover's powder, mercury, and opium, are the only well-established internal remedies; and that camphor joined with stimulants, electricity, and warm bathing, are the chief external applications worthy of notice. Since the late experiments on Galvanism, the action of electricity on the human system will probably become a more general object of attention; especially if new modes of applying it with increased effect should be suggested in the progress of this curious inquiry. We have, indeed, every thing to learn respecting a remedy like electricity, which sometimes surpasses in its effects our most sanguine

hopes, and too frequently disappoints expectations apparently well-founded. The use of the actual cautery, either in the form of moxa or match-paper, is now, we suppose, entirely laid aside by practitioners in this country. Dr. BARTHEZ has bestowed more space on the consideration of this method than we should have expected: but he depends much on the authority of M. *Pouteau.* We apprehend that the action of the stimulants already mentioned, or of the common rubifacients, may be rendered sufficiently strong for any useful purpose.

The chapter on Lumbago contains a collection of curious facts relating to that disease: but we cannot entirely agree with the author in his theory, which is rather too refined for common use. Neither do we coincide with him in recommending internal medicines for the cure of lumbago: which is soonest dissipated by the external application of warm stimulants. He mentions a cure performed by his favourite arnica, in fourteen days: this we should reckon as no cure: we believe that the camphorated spirit of turpentine (which is the basis of Home's liniment) generally cures the patient in two or three days.

The history of Sciatica is well detailed, with the exception of the connection fancied by the author to exist between this disease and gout. Every thing hitherto known respecting the method of cure is laid before the reader, but nothing here is added. Dr B. has been very industrious in accumulating authorities for the use of the actual cautery. A great part of his account of Sciatica, properly so called, is taken from the work of Cotunnius; and he depends much, with this writer, on the application of blisters in the course of the Sciatic nerve. The inaction of the muscles, which sometimes takes place after severe attacks of sciatica, is not owing, according to Dr. BARTHEZ, to a paralytic tendency, but to *tonic fixation* of the muscular fibres; a phrase which we suppose is equivalent to the old term, rigidity. He has taken occasion to digress to the curvature of the spine, and to attack Mr. Pott's opinions on that subject, but (we think) without much justice; nor does he ascribe to Mr. Pott's mode of treatment the degree of success which experience has proved to attend it.

When considering rheumatic inflammation of the viscera, we must confess that the author's arrangement appears exceedingly arbitrary; and he has contrived to bring even many cases of pneumonic inflammation under this head.

In what he styles rheumatic inflammation, the Doctor relies much on the use of blisters: but he says that they are contra-indicated in cases of genuine pneumonic inflammation. In this latter assertion, we think that he is by no means correct; our experience is in direct opposition to it.

In

For chronic pains of the stomach and other viscera, which the author refers to a rheumatic cause, he recommends very strongly arnica and dulcamara, two remedies in favour of which he seems to be warmly prejudiced.

In the rheumatic tooth-ach, he advises, among other remedies, the exposure of the pained parts to the steam of boiling water.

Dr. B. next proceeds to treat of diseases which are essentially gouty, though unaccompanied by regular attacks of either gout or rheumatism. The first of these is a gouty cachexy; the second, acute gouty inflammation of the viscera; and the third, chronic gouty inflammation of the viscera. The second species is termed by Dr. Cullen the misplaced gout; the third, the atonic gout. In violent pains of the stomach, produced by atonic gout, Dr. B. has succeeded by persevering in the use of aconite.

The third Book relates to the internal gout, or affections of the viscera connected with regular gout. Many of these are cases of retrocedent gout, which the author explains according to his own theory of a gouty matter circulated with the blood, and deposited on different parts. In speaking of anomalous gout, he disapproves the plan of forcing it towards the extremities by tonic and stimulant remedies, excepting in cases of great debility: but he recommends, in some instances, bleeding in the foot, emetics, purgatives, and diaphoretics; especially James's powder.—The vapour-bath is mentioned as a powerful auxiliary. The use of cordials and opiates is explained, with the necessary restrictions; and the topical application of stimulants is mentioned, with the cases in which relaxing and emollient applications are preferable.—In retrocedent gout, the author disapproves the indiscriminate use of stimulants, and he advises purgatives and diaphoretics.

Dr. B. gives a good view of the history and treatment of gout in the stomach. His information on this subject is accurate and copious; and his distinction between the irritable spasms of the stomach, and those which arise from debility, deserves particular attention. It would far exceed our limits, however, to pursue his extensive investigation of this part of the disease. He may be thought sometimes too subtile: but an anxiety to be accurate will always be pardoned by inquirers after truth. In gout of the stomach, accompanied with irritation, and an inflammatory tendency, castor oil, or other gentle laxatives, and opiates, are recommended. In gouty diarrhæa, astringents must be combined with opiates. Respecting gouty dysentery, the author's observations seem to relate to the general practice in dysenteric complaints.—A similar remark may be

made with regard to the description of chronic gout in the stomach and intestines; which, in fact, comprizes all the symptoms of chronic weakness of those organs, however induced, and the method of cure is perfectly analogous.

In gouty nephritis, opiates are advised in the acute, and diuretics in the chronic state.

Some very curious and interesting remarks occur on the affections of the genital parts in both sexes, especially on the arthritic gonorrhæa: but here we must forbear to enlarge; and we shall only observe that, in some cases in which the prostate gland was in a state of violent irritation, Dr. Barthez afforded much relief by the free and repeated application of leeches to the perinæum.

The directions concerning gouty catarrh, though copious, contain nothing exclusively applicable to gout. In gouty peripneumony, the author disapproves repeated bleedings, and advises particularly to bleed in the foot, and to apply blisters to the legs. As internal remedies, he recommends seneka and dulcamara.

On gouty consumption and asthma, we meet with nothing which merits particular notice. Dr. B. has very improperly classed the angina pectoris under gouty asthma, a complaint with which the former has certainly no connexion. It appears, indeed, that he has never seen a well-marked case of this disease.

We are next presented with an enumeration of several diseases which the author treats as depending occasionally on gout, though in the treatment of them the supposed alliance with that disorder makes little difference. We must, however, except one instance, in which we strongly disapprove the practice recommended by Dr. B.;—we refer to his injunction of bleeding in gouty apoplexy; because the indiscriminate use of the lancet in such cases would be extremely dangerous. Respecting the other remedies for this complaint, his directions are judicious. He has made one important remark; that the gouty apoplexy is sometimes periodical, observing the quartan type, for example; and that, under such circumstances, Peruvian bark may become necessary.—In the gouty palsy, besides the usual stimulating medicines, Dr. B. advises that rubifacients should be applied, in the hope of producing gout in the extremities.—Our limits do not allow us to enter into the particulars of his account of other complications of gout, with which the volume concludes.

We cannot take leave of this important though rather tedious publication, without expressing a wish that it may be introduced to English readers by a judicious abstract. If some

of the formal discussions were omitted, and the useful facts were carefully preserved, we are persuaded that it would be found to constitute a valuable addition to the physician's library. The extensiveness of Dr. BARTHEZ's views, his great medical erudition, and his firmness in opposing fashionable prejudices, render it desirable that every practitioner should be made acquainted with this publication. **Fer.**

ART. IV. *Histoire Geographique,* &c.; *i. e.* The Geographical, Political, and Natural History of Sardinia. By M. AZUNI.

[*Article concluded from the last Appendix.*]

FROM the exalted strains of the patriot's prayer, we must now descend, and pass our time (rather dully) among the beasts of the field, the fowls of the air, and the fishes of the sea. With the view of displaying the natural productions of an island of which the territory, with the exception of some downs on the sea-shore and a very few rugged rocks, is adapted to the culture of the most useful and agreeable fruits of each quarter of the globe, M. AZUNI distributes, under three sections, his account of its animal, mineral, and vegetable riches.—Though we should have preferred the inverted order of these materials, we shall slightly notice them as they occur; and thus complete our report of a performance which, if far from perfect, is the most satisfactory that has appeared on a subject of unmerited neglect.

Of 398 pages of which the second volume consists, 337 are allotted to the first section. A more equal division of the subject, and a more interesting series of recital, might have been effected by the suppression of many well-known descriptions and facts which have no pointed relation to Sardinia, and by the addition of many geological and botanical details, which nothing short of actual observation can supply. In consequence of this general remark, we deem it unnecessary to treat of the first section with a diffusion of criticism proportioned to its length. Its seven chapters have for their respective titles, 1. *Of the Domestic Animals.* 2. *Of the Wild Animals.* 3. *Of some Animal Productions.* 4. *Of the Amphibious Kinds.* 5. *Of Birds.* 6. *Of Fishes.* 7. *Of the Maritime Fisheries.*

Previously to the discussion of these topics, we are informed that Sardinia possesses at least one third of the quadrupeds which inhabit Europe, without any of the noxious species. Pausanias, Solinus, and Silius Italicus, had noticed its exemption from serpents and poisonous animals:

Serpentum tellus pura ac viduata venenis.

Vico, from ignorance, or policy, adopts the vulgar tradition, which ascribes the disappearance of wolves and serpents to the intercession of St. Proto. Did not absurdity confute itself, we might remind the reader that Silius Italicus wrote two centuries before the Saint existed.

The account of the *domestic* animals commences with a description of the *wild Horses*; which roam in the deserts and forests, and which are distinguished by their diminutive but neat proportions, their pre-eminent nimbleness, and their extreme love of liberty. Seldom are they caught alive; and in general they will rather die with hunger than endure a life of servitude. A swift and generous breed of horses is, however, reared and cherished by the opulent portion of the inhabitants; and horse-racing is a frequent and favourite diversion over the whole island. Every town, and even every considerable village, gives prizes for the successful competitors; and during carnival, the owners of prime horses urge their precipitate and perilous career through the winding and sloping streets of *Sassari* and *Cagliari*, and astonish the spectators by the rapidity and variety of their equestrian feats.

Herds of small and lean cattle abound in the pasture districts. The present deficiency of wholesome provender during the winter months might be easily supplied by the introduction of artificial meadows.—*Oxen* employed in draught are made to pull by the horns.

The *Hog* fattens and multiplies in the forests of Sardinia, where the purveyors of pork for the Roman market had antiently a factory under the protection of the Emperors. In 1771, the number of individual animals included in the several herds of swine, without regard to those which were bred about houses, amounted to 152,471. Their flesh and lard are uncommonly delicate, and the hams of *Santo Lussurgio* are said by M. Azuni to be the best in Europe. The variety of hog with undivided hoofs (*sus monungulus*) occurs in the canton of *Nurra*, not far from *Sassari*.

Since *Vico* published his history, the flocks of *Sheep*, though still very numerous, have decreased. Among the rams, are frequently found some with four and even six horns. They are easily tamed, and become attached to the society of horses. As the same variety of rams prevails in Iceland, it seems unnecessary to have recourse, with Vitalis and the present author, to an Egyptian or Syrian descent.

So very numerous are the *Goats*, that an assemblage of fewer than 300 is not termed a flock.

The *Asses* are small, but strong, active, and so fleet, that their pace is as quick as a horse's trot. Among the various kinds

kinds of labour to which they are subjected, is that of turning the small corn-mills which each peasant erects in his house. Hence *mulenti* is a common Sardinian appellation for the ass. M. AZUNI justly combats the prejudice of his countrymen, who reject the introduction of the mule: but he is, we believe, at variance with fact, when he asserts that this animal is most robust and long-lived in cold latitudes.

A peculiar race of *Dogs* is obtained in Sardinia, from the grey-hound and mastiff, which unites the properties of both. Hence the same mongrel watches the house and the flock, pursues the hare, the boar, the stag, and the mouflon. Notwithstanding the multitudes of dogs which are bred on the island, the great heat of summer, and the frequent scarcity of water, cases of hydrophobia are very rare. If our information be correct, that dreadful malady is unknown in the warmest regions of Africa and America, and very seldom occurs in Constantinople, where the canine race is condemned to prowl in the streets for a precarious subsistence.—Some of the islanders ascribe their good fortune to the practice of destroying the females of the first litter, and others to the absence of the long-haired kinds of dogs, which are supposed to be more particularly liable to madness. The author insinuates that the non-existence of wolves should likewise be taken into the account.—These alleged causes, however, seem to be at best hypothetical. We are not so lost in scepticism as to assert, with some paradoxical physicians, that hydrophobia is an imaginary distemper: but we may safely affirm that it is often stated to exist on the most frivolous pretexts, and that idle reports and childish alarms are seldom quieted without the sacrifice of many innocent victims.

The chapter on wild animals presents us with little that is worthy of remark. Though *Stags* and *Fallow Deer* are very common, the Roebuck is falsely alleged to inhabit the island; and though the Martin abounds, the Polecat is unknown. The account of the *Mouflon*, an animal which seems to form the interval between the stag and the sheep, (most probably the *Ophion* of the Greeks,) is too long for our insertion; and, moreover, *Cetti* and *Buffon* had anticipated the most important observations concerning it. In his relation of the *Boccamele*, or *Donna di Muro*, an animal which perhaps constitutes the link between the weasel and the ermine, the author appears more anxious to expose the inaccuracies of *Buffon*, than to convey any distinct ideas of this rare quadruped; which seems to coincide with the *Ictis* of Aristotle.

Chapter III. would have been introduced with more propriety at the conclusion of the zoological details:—in its present

sent form, its substance may be comprized in a few words.—The large horns of the cattle are exported chiefly to Genoa and Provence: nearly one half of the raw hides have the same destination, and the other is consumed on the island. In consequence of the introduction of Spanish sheep, wool promises to form a considerable branch of trade. Of animal productions, however, the principal article of exportation is cheese; from fifty to sixty thousand quintals of the ordinary sort being annually shipped for Marseilles, Barcelona, Genoa, Civita Vecchia, and Naples. Considerable quantities of honey are produced both by the wild and domestic bee: but a large portion of it is retained for home-consumption.

Among the amphibious animals, we meet with the *Land Tortoise*, the *Fresh-water* and *Sea Turtle*, the *Stellio*, *Eft*, and *Green Lizard*, called *Tiliguerta*, and, in some parts of the island, *Tiliguetta*. *Linné*, *Gmelin*, and *Cetti* had erroneously considered this variety of nomenclature as indicative of a distinct species: but with the same propriety they might have separated the *Lanzinafenu* from the *Seps*, or *Lacerta Chalcidica*.—The *Tiligugu* may not improperly be termed the *Sardinian Lizard*.

'Its breadth, which extends two inches, is considerable when compared with its length, which measures only eight inches including the tail. It has four very short feet, each furnished with five clawed toes. Its projecting head, immediately connected with the body, is rather short, and tapers towards the extremity; is somewhat convex at the top, and flattened at the sides. The upper jaw is of the same length with the lower. The nostrils, placed at the extremity of the upper jaw, are large and oval; the tongue is pointed, heart-shaped, indented, and fleshy at the base; the gape, of a moderate width; the teeth are short, equal, blunt at the end, and straight at the sides; the eyes, placed at the bottom of the head, are distinguished by their spear-shaped pupils, brown irides, and black eye-lids; the ears, at the corners of the jaws, are large: and the neck is of the thickness and form of the body. The latter is an oblong oval, angular on the back. The tail, continuous with the back, tapers from the hind legs to the extremity, which is small and round. The fore-legs are placed at the distance of an inch from the lower end of the head; the hind-legs, at the two extremities of the abdomen, are removed $2\frac{1}{2}$ inches from the fore-legs and the tip of the tail. The body and legs are covered with dark-coloured scales, studded with black and shining dots. The scales on the top of the head are large and irregular: but they are small, and resembling those of fishes, on the rest of the body. The sides, breast, and legs, are whitish. This creature lives far from water; in which it cannot exist, from the want of swimming membranes between the toes.'

From the above description, it is obvious that the Sardinian Lizard is neither of the same species with the Egyptian *Scink*, nor with the *Mabouga* of the West Indies.

The

The common eatable *Frog* is not found in the island: but its absence is compensated by swarms of the green species, which haunt the trees in summer.

Of the four kinds of *Snakes*, none are venomous; and the collared species of *Lacépède* is welcomed by the superstitious peasant as an animal of propitious augury.

The history of several of the *Birds* here enumerated receives no new illustration from the author's pen: but we meet with some pertinent strictures on *Cetti's Uccelli di Sardegna*, and occasional corrections of the hasty assertions of *Buffon*. Thus, the *small*, *cinereous*, and *sea Eagles* constantly reside on the island, and are not passengers, as the French naturalist had alleged. The bearded *Vulture*, an inhabitant of the Alps and Pyrénées, occurs likewise in Sardinia; and it appears, from *de la Pérouse*'s description, to be essentially distinct from the *Griffon*, with which *Buffon* had confounded it.

It is worthy of remark that the common *Magpie* is here unknown; whereas the speckled species, a migratory bird in France, and even in Egypt, remains during the whole year, resorting to the woods and mountains in summer, and descending to the plains and approaching the habitations of man in winter. Another resident, by no means rare, is the smaller *Bustard*; which *Buffon* and *Mauduyt* would confine to France, though *Redi* had mentioned it as a native of Italy, under the appellation of *Gallina pratajuola*.

In consequence of repeated assurances that *Swallows* were to be found in a torpid state in the islet of *Asinara*, and in the neighbouring caverns of *Orosei*, M. AZUNI purposely visited those places, about the end of November, and found only clusters of benumbed Bats, which had doubtless been mistaken for Swallows.

The *Flamingo*, which arrives in flocks from Africa about the beginning of autumn, frequents lakes in the south parts of the island during six months. The *Pelican*, too, is only a bird of passage, migrating occasionally from the African coast.

From the author's notices of the ichthyology of Sardinia, we learn that great numbers of mullets are smoaked, like red herrings; and that an excellent *botargo* is prepared from their roes; which are first salted, then pressed between two boards, afterward washed, and then smoaked, or dried in the sun.

Among the rarer fishes, we remark the *Muræna*, or *Roman Eel*, the *Serpent Eel*, and the *Flat-tailed Sea-Serpent*. The *Tunny* swarms on the shores, attains to a size greatly exceeding that of the variety which frequents the coast of Provence, and weighs from 800 to 1200 lbs. *Cetti's Alalunga* resembles a very small Tunny. *Sonnini* conjectures that it is the *Thon Blanc* of

of the French, and the *Accola* of the Maltese. Though *Scomber calius* inhabits the shores of Sardinia, we do not find it noticed in the present work. Perhaps the author, with some other naturalists, considers it only as the young of the mackerel. The last mentioned fish, however, and the Anchovy are total strangers to the island. M. AZUNI conjectures that they are devoured by the immense shoals of Tunnies.

The seventh chapter is particularly deserving of attention, as it minutely describes all the operations of the Tunny fishery: but we could not render it intelligible to our readers without large extracts, and the assistance of the plates. This season of bustle and festivity lasts from May to July, and the annual capture is averaged at 52,000 tunnies, which produce nearly a million of French livres.

The coral fishery, a still more lucrative concern, is tamely abandoned to the industry of foreign adventurers: but a moderate anchorage-duty is levied on each boat, and a tax of five per cent. on the value of the commodity is paid, in money or kind, to the exchequer.

All the *Insects*, for what reason we know not, are passed in total silence.

The second division of the volume, which occupies only 28 pages, is intitled, *Of the Mineral Kingdom*: but, so far from presenting us with correct or general views of the geological structure of the island, it contains only slight notices of some of the most useful fossil substances.—The gold, mentioned by the Roman writers, is supposed to have been extracted from the high granite mountains of *Gallicia*.—Silver ores still occur in various places; and that of *Rio de Cani* gives 6 ounces in the 100lbs.: but the mining art has never been prosecuted with steadiness or effect.—The iron ores of some districts yield 50 and even 60 per cent., without exciting the active enterprize of the inhabitants.—Veins of lead are by no means rare; and the Chevalier *de Napion* asserts that some of the richest mines of this metal, affording from 60 to 80 per cent., might be rendered extremely profitable in the course of twelve months.—Symptoms of copper, antimony, and mercury have also been traced.—The other mineral productions, which are here enumerated, are rock-crystal, cornelian, sardonyx, calcedony, agate, blood-coloured porphyry, marble, alabaster, granite, fuller's-earth, native alum, pit-coal (which emits a very offensive bituminous vapour), and pumice-stone.

Mineral baths are not wanting: but they are destitute of proper accommodation for visitors, and very little frequented.

The concluding division is prefaced by a few remarks on the extraordinary fruitfulness of the island during its subjec-

tion to Rome; and its soil, at this day, does not wholly belye its antient character. A return of 15 or 20 for 1 is reckoned a very poor crop of wheat. In the department of *Nurra*, and some districts of the *Campidano*, the farmer reckons from 60 even to 100 fold. Each plant produces several ears; and so vigorous and well proportioned is the stem, that it never sinks under its precious load. Barley, beans, lentils, &c. are not less prolific.

Many of the prime *Wines* of Sardinia may be compared to those of Spain, Cyprus, or the Canaries. The most in request is the *Nasco*, of an amber hue, very delicate flavour, and very generous quality. So abundant is the produce of the ordinary vineyards, that a considerable portion of the grapes is often lost, from the want of casks to receive their juice.

Forests of wild *Olive-trees* are condemned to feed the flames, or to perish with old age: but an oil, not inferior to that of Aix or Nice, is obtained from the cultivated kinds. Plantations of the latter have, for some time past, formed a considerable object of rural economy.

Among the *Fruit Trees*, we find the *Orange*, *Lemon*, *Citron*, *Pomegranate*, *Fig*, *Peach*, *Apricot*, *Walnut*, *Almond*, *Apple*, *Pear*, &c.

Two sorts of *Palm Tree* are mentioned, but in such a vague manner that we are somewhat at a loss to ascertain their proper designations. If *Palma Major*, which is applied to the first, be given as *Bauhin*'s synonym, we may conclude that it is *Phœnix dactylifera*, or the date-tree. The other, termed *Palmizzu* by the islanders, is probably *Chamærops humilis*, or, the dwarf-fan-palm, which is not uncommon in Spain and Portugal.

Experience has proved that the *Cotton-plant*, *Sugar-cane*, *Indigo*, and even *Coffee*, may be successfully cultivated in the warmer valleys.—The breeding of the silk-worm has lately occupied the attention of government: but we may be allowed to doubt whether any extensive manufactures can be successfully conducted during the present reduced state of population, and the existence of those political evils which are recorded in the first volume.—*Barilla* and *Tobacco* might form considerable articles of exportation: but their production has been checked by injudicious taxes.

In some districts near *Sassari*, an oil, fit both for the lamp and for currying, is procured from the berries of the *Pistacia Lentiscus*, or mastic-tree: yet the tree itself, so valued for the beauty of its wood, and springing up along the shores in such gay profusion, is allowed to share the same fate with the mountain olive. The *ladaniferous Cistus* is a common shrub all

all over the island: but no attempts have been made to extract from it that valuable drug, from which it derives its specific name. Thus it is that the finest provisions of nature are intercepted by the narrow policy of man, or neglected by his ignorance; and that the earth yields her blessings in vain, if not inhabited by a free and enlightened people.

The Sardinian forests consist chiefly of the *Cork-Tree*, *Oak*, *Holm Oak*, *Fir*, and *Chesnut*. Thick, aged, and extensive woods are left untouched, while planks for common purposes are imported from Corsica and Nice.

A very meagre *Flora*, in which we meet with twenty or thirty genuine or specific names, concludes this section and the work.

The notes are numerous, and not destitute of merit; since they frequently correct the mistakes of modern, or contain apposite allusions to the notices of antient naturalists.—The plates, well engraven by *Tardieu*, of Paris, represent the male and female *Mouflon*, the *Seps*, the *Tiligugu*, and the occupations of the *Tunny-fishers*.

Muir.

ART. V. *Histoire des Mathématiques*, &c.; *i. e.* A History of the Mathematics; giving an Account of the Progress of that Science from its Origin to the present Time; exhibiting a View and Developement of the principal Discoveries in all its Branches, of the Controversies which have arisen between Mathematicians, and of the most material Circumstances in their Lives. A new Edition, considerably enlarged. By J. F. MONTUCLA, of the National Institute of France. Completed and published by *Jerome de la Lande*. 4to. 4 Vols. Paris. 1802. Imported by De Boffe, London. Price 4 Guineas in Boards.

THE first edition of this work, in two volumes quarto, appeared in 1758, and was noticed by us in Vol. xx. p. 374. The present impression is in bulk more than double the former: consisting of the two old volumes with considerable additions, and of two others entirely new. During a period of thirty years, M. MONTUCLA was gradually collecting materials for a new edition: but the immediate motives for its publication seem to have been the solicitation of his friend *La Lande*, and the more powerful demand of his wants; the Revolution having deprived him of his place, and, with it, of his means of support.

The composition of the last two volumes required more time, and the exercise of greater talents, than the two former: because the history of an age was to be related, in which the face of science had been completely changed. It was no easy task to state, with precision and brevity, the labours of *Euler*, *Clairaut*,

Clairaut, *D'Alembert*, *Bernouilli*, *La Place*, and *La Grange*; and to render intelligible to common readers the improvements which the analytic art and physical astronomy had received in the 18th century. In fact, it was necessary that the historian himself, if he wished to perform his task with ability, should be a profound mathematician.

MONTUCLA did not live long enough to see this edition completed. After his decease, M. LA LANDE took charge of the manuscripts, and, with the assistance of friends, supplied the deficiencies of several articles. A biographical account of the author is also prefixed; which displays a life, quiet, harmless, and uniform; such as belongs to philosophers, and as would become many who cannot lay claim to that title.

Although volumes I. and II. have received considerable alterations, we shall easily be excused for not again examining them; and indeed of the two which are new, we do not purpose to enter into a particular discussion; since the matter which they contain has already, in different shapes, been before the public. MONTUCLA has given only an abstract of that which is more fully exhibited in distinct treatises and the memoirs of learned societies; and were we, in attempting a particular examination, to occupy all the pages of the present Appendix, we could produce only the unsatisfactory abridgment of an abridgment.

Volume III. contains between 800 and 900 pages closely printed; and its first part, the 5th of the work, comprehends the history of Analysis and of Geometry, from the commencement of the 18th century. We find in it an account of nearly all that has been done relatively to the resolution of equations; the theory of curves; the enumeration of curves of the third order, as given by Newton; the organical description of curves by Maclaurin, Newton, &c.; the geometry of curved surfaces; the history of the differential calculus, resumed from the former volumes; the controversy between Newton and Leibnitz concerning its discovery; difficulties raised against it by Rolle and Berkeley; its defence undertaken by Robins, Smith, Maclaurin, Saurin, &c.; use of the differential calculus in the theory of curves; integral calculus; differential method; series, recurring, &c. as treated by De Moivre and Euler; method of increments, or of finite differences; theory of analytical functions by *La Grange*; calculation of circular and logarithmic functions; methods of eliminations of interpolation; continued fractions; calculus of variations, of partial differentials; doctrine of chances; &c.

This book is on the whole ably executed: yet, as old men, and especially old Frenchmen, have a leaning towards that foible

foible called garrulity; so the worthy historian of the mathematics sometimes dwells too long on a subject, and sometimes repeats preceding matter. In disposition, he seems to us impartial; and when partiality appears, it is to be attributed to want of information. With so vast a subject, he could not reasonably be expected to treat all its parts distinctly and profoundly; he must, of necessity, occasionally speak of books which he had never read; and he must give opinions concerning them which were due to other men. A perusal of his work confirms this idea. In his account of the discoveries of Algebra claimed by Harriot and *Descartes*, he has already been accused of favouring his countrymen: but, although we find in his latter volumes many blows aimed at the English, yet, in the discussion of the controversy between Newton and *Leibnitz*, he is just towards our countryman. He is, however, more zealous as a mathematician than as a Frenchman; for Berkeley is roughly handled: his Analyst is treated as a book of sophisms: the man who possessed "every virtue under heaven" is styled the *fougueux évêque*; and the exquisite raillery of the Analyst is transferred, contrary to all justice, to the *Philalethes Cantabrigiensis*. We can account, indeed, for this deficiency of judgment in the author; since we find his acknowlegement that, of the controversial tracts occasioned by the Analyst, Robins's work was the only one which he could procure. When the historian quits the peaceful province of simple narration for the perilous tracts of controversy and censure, he ought to be sure of his ground, and well informed of the difficulties of his undertaking; and his censure should not be the echo of another's opinion, but the formal expression of his own deliberate judgment.

We cannot say that the perusal of this part of the work has impressed us with the idea of its author being a consummate mathematician; and we have met with several inaccuracies. Speaking of the binomial theorem, he says that it is demonstrated in the *Scriptores Logarithmici*, '*de la manière la plus compl te, et la plus variée*;' and again, on the question of the logarithms of negative numbers, he inclines to the opinion which has the greatest *number of suffrages in its favour*.

The second book relates the progress of the science of Optics during the 18th century. While the 336th page was under correction, MONTUCLA died, and the care of superintending the remaining part of the *History* devolved on M. *La Lande*. Not feeling himself competent to write on all the branches of mathematics, or being adverse to so much labour, the great astronomer of France sought assistance to the undertaking; and the charge of revising and completing the history of optics

was

was intrusted to M. *De Fortia.* For the reasons above stated, we must abstain from a detailed examination of this part; towards the end of which, all sorts of modern inventions are described: such as the Phantasmagoria, the Panorama, the Phloscope, the Thermolampe, &c. Perhaps it would have been better to have omitted an account of these inventions, as well as of other mechanical contrivances reported in these last volumes. It is true that they depend and are constructed on philosophical principles, but so is every instrument and machine which art employs; and we think that these ought to have been excluded from a history of the mathematics, not because the description of them is either useless or unentertaining, but because they add to matter already too abundant, and are only collaterally related to the mathematics.

In the first edition, the tissue of narrative and explanation was interwoven with philosophical reflections only: in the present, it is variegated with political censures and execrations. Our countrymen are not the objects of the latter, which are hurled against *Marat*, the calumniator of Newton, the scourge of France, and the enemy of human kind: but the English escape not censures: they are accused of having waged against the French an atrocious war: to terminate which, the historian informs us, an attempt was to have been made, by means of the diving-boat of Fulton, to destroy the navy of England.

Book iii. comprehends the history of the progress of theoretical and analytical mechanics, or philosophical mechanics, during the 18th century: in which, great use is made of the *Mécanique Analytique* of *La Grange*.

The history of Astronomy is very clearly and satisfactorily given; which, indeed, was to be expected: for here LA LANDE is in his element.

A distinct division of the work is assigned to the history of Navigation and the art of constructing Vessels. When we consider the variety and the extent of the subjects treated in these volumes, we cease to wonder at their great bulk: but, at the same time, we cannot help wishing that this bulk had been less.

Although this publication forms a valuable acquisition to science, it is not secure from objection and censure. It is not excellent in its arrangement, and it requires to be pruned and compressed. Many causes may be assigned for the latter volumes not being equal to the former. They are not the natural and matured produce of study and reflection: they were rather prematurely forced into publication, by particular exigencies: MONTUCLA himself did not live to finish them; the

historian (apparently, as we have said, no very profound mathematician,) had now to treat subjects of the most difficult and abstruse nature; and though his judgment had probably improved by age, the researches and investigations necessary in his undertaking required great alacrity and vigour of mind, qualities which probably had been impaired by the same cause. In thus enumerating imperfections and their causes, however, let us not forget that the work itself is a great work; and let it not be denied that it intitles its author to a distinguished place among the cultivators of philosophy and abstract science. R.W.

ART. VI. *Collection de Mémoires,* &c.; *i. e.* A Collection of Memoirs and official Correspondence relative to the Administration of the Colonies, particularly of French and Dutch Guiana and the Island of St. Domingo. By V. P. MALOUET, Ex-Minister of the Colonies and of the Navy. 8vo. 5 Vols. Paris. 1802. Imported by De Boffe, London. Price 1l. 10s. sewed.

FEW persons, we believe, are apprized of the serious hardships and imminent perils which await the execution of colonizing projects on the continent of South America, and particularly of that part of it which is included within the torrid zone. Nothing but the fascinating love of gold could induce men voluntarily to oppose themselves to such formidable difficulties: but, instigated by this principle, they will brave the tempests of the ocean, cut their way through forests inhabited by poisonous reptiles and beasts of prey, and toil in bogs or morasses teeming every moment with pestilence and death. Hence adventurers are continually flocking to trans-atlantic settlements; and hence recruits are easily obtained to repair the ravages occasioned by the system of colonization, in the most baleful regions. It is impossible to read some parts of M. MALOUET's details relative to this subject, without admiring the perseverance while lamenting the infatuation of men. When settlements, however, are actually made, and they are found to return a profit to the parent state, they are considered as objects of importance; and every thing connected with their formation, preservation, government, and improvement, becomes interesting. M. MALOUET's reports, therefore, relative to the French and Dutch colonies in Guiana are worthy of notice, since they proceed from a person of knowlege and long experience, who was well acquainted with the nature and physical state of this part of the South American continent.

The first and second volumes describe the state of Guiana, when the author first visited it in 1776, in order to superintend the new settlement at Cayenne; and his letters to M. *De Sartine,*

tine, the Minister, which are written with ease and freedom, contain a particular account of every measure adopted by him to promote the general welfare. The third volume relates chiefly to Surinam, the Dutch settlement adjacent to Cayenne; detailing the author's journey thither, his reception, and the objects most deserving attention in that flourishing colony. Volume IV. contains details relative to St. Domingo, with a number of judicious observations, which will not fail to excite interest; recent events having so much directed the minds of Europeans to this island. The fifth and last volume is filled with observations on the *Colonial-regimen*.

The author is of opinion that the memoirs and correspondence here presented to the public, though written twenty-five years ago, are so far from having lost any degree of attraction by this circumstance, that they hence derive an advantage over new works on the same subject, however recommended by internal merit. He informs us that, from his earliest youth, he had made the subject of the colonies his particular study; that, having possessed property in St. Domingo, and resided there for a considerable time, he was enabled to form some probable conjectures respecting the best means of promoting the culture and commerce of these dependencies; that he began his career as minister of the navy about 1763, and from that period has been employed in colonial concerns. In that year, also, he was appointed to inspect the men and stores intended to form a new settlement on the coast of Guiana; the Duke of *Choiseul* having conceived the project of compensating for the loss of Canada, by establishing an extensive colony of Europeans in South America. 'It will now appear incredible, (says the author,) that a man of so much good sense should ever have thought of cultivating the bogs of the Torrid zone, with peasants taken from Alsace and Lorraine!' Yet such was the scheme of this minister; and the stupidity and improvidence displayed in the details of its execution surpassed even the extravagance of the plan itself. M. MALOUET observes:

'The expedition consisted of a multitude of mad-headed individuals of all ranks and descriptions, which presented a miserable spectacle even to my inexperience. There were, besides the labouring peasants, monied men, young men of education, whole families of artisans, tradesmen, gentlemen, and lastly a company of actors and actresses, and a band of musicians, to entertain this new colony, each of whom counted on making a rapid fortune. I little thought at the time that, 'ere long, I should mourn over the very tombs of these unfortunate men; and that, notwithstanding this striking and instructive example, (this expedition having cost the country fourteen thousand men and thirty millions of livres,) I should soon have to contend against a similar infatuation.'

Three years had scarcely elapsed from the destruction of the colony of Coro, before a new settlement was planned for another part of Guiana; and, though less extravagant than the first, it was equally the child of inconsiderate speculation, and shared the same fate. A few years obliterated the impression made by this second failure; and, in 1776, for the third time in the space of twelve years, Cayenne was represented as another Peru, by Baron de Besner, who looked forwards to the government of that colony, and was in fact appointed to it after M. MALOUET'S administration. This man had contrived to stamp popularity on his favourite project, which was to entice the negroes in revolt at Surinam to pass the river Maroni, and place themselves under the protection of the French. The author disapproved this wild scheme: but, as he found that the government was determined to form an establishment in Guiana, he composed a system of regulations; which was so much approved that M. *De Sartine* sent for him to Versailles, and informed him that the king had both adopted his plans and intrusted him with their execution: granting him, at the same time, more unlimited power than any former administrator had ever enjoyed, and the flattering privilege of drawing up his own instructions.

On the author's arrival at Cayenne, and during his residence, he experienced much trouble and vexation: but he persevered in his exertions, and, when he left it in 1780, it was in a promising state.—Glancing at the singular nature of this transatlantic region, he says:

'To an European, this continent seems like a new world; the quadrupeds, the reptiles, the birds, and the insects, differ in shape and size from those of Europe: the animals in general are weaker, the plants considerably more robust, and the reptiles enormous. The woods have a more majestic appearance; they represent, in their different ages, the succession of centuries; and a new soil is formed by the exuviæ of these impenetrable forests.'

To the temporal details, he subjoins an account of the success of the spiritual agents attached to the expedition:

'Shortly after my arrival, (says he,) I sent one of the projected missions up the bay *Vincent Pinson* *. I ordered two priests to go thither, with workmen, a number of commodities for sale, and a serjeant's guard to be at the command of the Missionaries. They travelled up the country, and, by means of presents, succeeded in assembling the Indians every Sunday in a chapel which had been built for that purpose. They were catechized and baptized, and they attended regularly at divine service, for which they constantly

* It is in this bay that the most numerous settlements of Indians are found.

received

received each a dram of Taffia *: but no sooner was the Taffia expended, than the negroes omitted their attendance at chapel. One of the Missionaries was so imprudent as to send some armed soldiers for them: but they resisted this force, and sent their chiefs to Cayenne, in order to prefer their complaints.

'M. *De Fiemond*, the old governor, happening to be absent, they came to me; and on seeing the reflection of their figures and motions in the looking-glasses which ornamented the apartment in which I received them, they uttered loud shrieks of joy and surprize: they danced, touched the glasses, spoke to them, and then looked behind them to find out the cause of this reflection. No sooner, however, had astonishment subsided, than they resumed their former grave countenances, and squatted on the floor; where, staring at me with a look of discontent, they expressed themselves nearly in the following terms, which were explained to me by an interpreter, in the presence of the ecclesiastical prefect, and several civil and military officers:

"We come to inquire what thou wantest of us, and why thou hast sent the Whites to distress us? They signed a treaty with us, which they have been the first to break. We agreed to attend their singing, and to kneel down in their *Carbet*, for which we were to receive weekly a bottle of Taffia. As long as they gave us this Taffia, we came; when they withdrew it, we left them unmolested, and demanded nothing: they then sent soldiers, to compel us by force to attend them: but to this we will not submit.—They also require us to sow and to labour after the manner of the Whites, which we will not do.—We are able to furnish thee with twenty hunters, and fishermen, at the rate of three piasters per month for each man: if this suit thee, we are at thy service: but, if we are to be molested, we shall settle on some other river."—

'I assured them that in future they should have no more cause for complaint; and that the Missionaries had been sent to them for their benefit, and not for their injury. I commissioned the prefect to explain the religious object of his mission: but his discourse was of no use, for they replied to it only by peals of laughter. I loaded them with presents, and sent them home contented. I charged the Missionaries to act with more circumspection; the treaty of the Taffia was renewed: but it produced not a single conversion; not a field of cleared land; nor did it facilitate any intimacy between the Indians and the Whites.'

From this anecdote, it may be inferred that the civilization of the Indians is no easy task; and that, in their present state, there is little prospect of giving them correct notions of Christianity. If Missionaries were honest, we should probably be presented with many accounts of this kind.

On a visit to the forts, and to the neighbouring villages of the Indians, M. MALOUET met with an occurrence which he thus relates:

* A kind of rum.

'On a small island in the middle of the Oyapock, where the torrent forms a most magnificent cascade, I found an old soldier, who had served under Louis XIV. and had obtained a pension in consequence of a wound which he received at the battle of Malplaquet. He was one hundred and ten years old in 1777, and had lived forty years in this solitude. He was blind, naked, very much wrinkled, and decrepitude was expressed in his figure, though not in his actions; his manner of walking and the sound of his voice were those of a robust man; and a long white beard hung down to his middle. His society consisted of two old negroe women, who maintained him by the produce of their fishery, and of a small garden which they cultivated on the bank of the river. He spoke of the *black wig* of Louis XIV. whom he called a *handsome and great Prince* (un beau & grand Prince), of the warlike appearance of Marshal *Villars*, of the modest countenance of Marshal *Catinat*, and of the goodness of *Fénélon*, at whose door he had stood sentinel at Cambray. He had arrived at Cayenne in 1730, where he had been employed as *economiste* (steward) by the jesuits, who were at that time the only opulent proprietors, and he himself was then in very easy circumstances. I offered to convey him to the fort, but he objected, saying that the noise of the cascade was to him a source of enjoyment, that the abundance of fish was a great comfort, and that, as I had promised him a ration of bread, wine, and salt meat, he could wish for nothing more.

'He had received me with the greatest demonstrations of joy; but, when I was about to depart, his venerable countenance was bathed with tears. He had, notwithstanding his blindness, discovered my emotion; he laid hold of my coat, and with that dignified deportment, so becoming in old age, he bade me *stop*; after which he knelt down in prayer, laid his hands upon the top of my head, and gave me his blessing.'

In another excursion, the author witnessed the extreme apathy and indolence of the Indians, when afflicted with any disease. Though half of the village had fallen victims to an epidemic complaint, they refused every humane offer, would take no medicines, submit to no regimen, and, with the utmost indifference, resigned themselves to their fate. If, however, when attacked by illness, they take no trouble to escape death, in health they are so extremely active and persevering that no difficulties can intimidate them.

M. Malouet gives the limits of Guiana from north to south; states the right of the French to the country situated between the rivers Amazon and Oroonoko; and enters into a long enumeration of particulars relative to the system of colonization in this part of the world.

The author appears to have been assiduous in promoting the happiness of the colony at Guiana; in alleviating, as far as circumstances would admit, the sufferings of the slaves; and

and in rectifying abuses which had been suffered to spring up from the want of integrity or vigilance in the members of the government, and other officers. The struggles which he was forced to encounter in establishing the laws, in reforming the manners, and in improving the estates of the inhabitants, are fully enumerated in his letters to M. *De Sartine* and the governors of the Company of Guiana. Wretched indeed must have been the state of the colony on the author's arrival at Cayenne: which knew neither judges nor lawyers who could reflect the least honour on their profession, and where justice was either wholly neglected, or administered with a most partial hand.

To give a farther idea of the deplorable state of some of the inhabitants, we translate a part of one of M. MALOUET's letters to M. *De Sartine*:

'26th March 1777. I have been to all the posts and different quarters of this colony, both to the south and west; and I found all the inhabitants at their houses. I have been up the Oyapock, the Aprouague, and the Sinnamary, upwards of twenty leagues from their mouths: I have travelled through several mountainous parts, and through the low and high grounds; and I must inform you that this colony is as poor and as miserable as any spot of the world. I found a man at Oyapock dying with hunger in his hut, at the distance of seven leagues from any other habitation; and I have met several at Aprouague, who lived merely on roots, having neither bread nor wine, labouring under disease, and languishing on their couches. Such is the state of the majority of the inferior inhabitants along the banks of the rivers. The most industrious and robust have escaped; and I met, between Sinnamary and Kourau, a few men whose labours and success have astonished me.—An old soldier, named *Gervais*, cultivates seven acres of ground, planted with corn and cotton: he has thus obtained the situation of a rich farmer, being proprietor of a great herd of cattle, and being enabled to purchase four negroes. There are, perhaps, in the whole colony, about 20 of this sort of men; the rest have either perished or live in misery. The first class of inhabitants is in general in uneasy circumstances, with the exception of a dozen only. Among the latter, I found some laborious and intelligent men, nearly all of whom were tilling grounds of inferior quality. The majority of the rest are either unfortunate, or in debt, working and living very ill. M. *Rochelle*, who bought M. *Dubucq*'s estate, is one of those who astonished me most: he had gained one hundred thousand crowns at St. Domingo, and is come hither to sink them on a most detestably bad tract of land. I found him perfectly naked, working in the midst of his slaves, and having neither furniture nor provisions in his house.'

The streets not being paved when M. MALOUET arrived at Cayenne, he had this necessary work effected: 'for in rainy weather each street became a torrent, or a muddy ditch. The foundations of the houses must thus be impaired, and

the public communications become impracticable.' He adds:

'Several churches are going to ruin; and the churchwardens and the manufacturers refuse to contribute towards their repairs. The orders of the government are unexecuted. The National Assembly has suggested the prohibition of burials in the churches; and if this exclusion has been deemed necessary in Europe, it must be more essential under the torrid zone.'

This correspondence contains not only a detail of the bad state of this settlement, but of the deficiency of its supplies from the ~~present~~ parent state.

The only hope of improving the colony having been found to rest on clearing and draining the low country, (the high grounds being steril,) it was deemed a matter of some importance to ascertain the possibility of these operations. Till this period, no man had been daring enough to cross swampy plains covered with flags and thorns; which were considered as inaccessible during the rainy season, and it was only during that period that the degree of fall to the sea could be ascertained. On this enterprize, however, Messrs. *Boisberthelot* and *Guisan*, engineers, were sent, accompanied by M. *Couturier*, from Cayenne; with orders to explore the country situated between the right bank of the *Maburi* and the left bank of the *Kaw*. No search was ever made with more peril, fatigue, and perseverance; and we select a few extracts from their journal, to convey, if possible, an idea to our readers of the dreadful situation of persons who undertake to explore and clear a country in this part of the world:

'March 4. We continued to clear the little creek which takes its source close to the savannahs; and at noon we had carried our canoes across the lands into the *Pripris*, or swamps. We were here astonished at not finding above 15 and 18 inches of water, which was not sufficient to float the canoes, and our difficulties were increased by the flags with which these savannahs are covered: they are an inch thick, and from seven to eight feet high. We have two canoes that can hold four men each with their provisions, and a small flat-bottomed boat which will carry six men; and our provisions will last for eleven days:—but, as three or four negroes are required to clear our way, we have not a sufficient number of men left (even including ourselves) to draw our canoes over the shallows, and shall therefore leave our flat-bottomed boat behind, as well as that in which we stored up part of our provisions, and begin our march in the water, with our negroes, pushing and dragging our canoes along. We open a straight line to the S. E., and this evening (six o'clock) we find ourselves at a quarter of a league from the *Palituviers*. We have passed a very uncomfortable night: the negroes have all been stowed together in one of the canoes, which was filled every moment with the rain; so that one of them was constantly employed in baleing out the water, while the others endeavoured to sleep. None

of

of us enjoyed any covering: but the Whites had the advantage of having their hammocks suspended on long poles called *takaris*, which kept us for a time above the water: but, the poles having sunken into the ground, by our weight, we found ourselves at day break in the water. After this wretched night, all our efforts were required to bring up the flat-bottomed boat, which yesterday we left behind, that we might make more room for the negroes during the night.

March 6. We are beyond the great flags, and have reached a plain covered with grass, much resembling the leaves of the young sugar canes. The blades of it, cutting like a razor on both edges, permit us to proceed but slowly, and have wounded the legs of the negroes. At noon, we arrived at another plain covered with two inches more of water than we found among the flags. We still keep to the S. E. It rains incessantly. Our provisions and luggage are all wet. We encamp as usual at six o'clock in the evening.

'March 7. The rain has been so incessant as to render it impossible to observe any thing either to the right or left.—Our provisions begin to spoil.

'March 8. We crossed the *Moucou-moucous* yesterday evening, and entered a part covered with trees of *Pruniers-cotton*, which are so thick that a man cannot penetrate them without cutting his way. We are obliged therefore to employ hatchets and sabres, to enable our canoes to pass. This wood is extremely hard; and as it cannot be cut below the surface of the water, our boats are continually striking on the stumps, and we have much trouble in dragging them from one stump to another; yet this day we have advanced from 180 to 200 *toises* (360 or 400 yards), and to our hardships is to be added the badness of our provisions. We have had only two hours of fair weather.'

The journal proceeds to a great length with similar details: but these specimens are sufficient to answer the purpose for which we extracted them.

Many particulars are enumerated relative to Surinam, which were collected in the course of the author's visit to this Dutch settlement. He gives a favourable account of the general situation and treatment of the negroes, and of Surinam itself he thus speaks:

'I have seen nothing in the French or English colonies, which can be compared to the beauty and neatness of its plantations. All the lands along the shores are at every tide overflowed with four or five feet of water: but by means of sluices and ditches, the Dutch have succeeded in draining them, and hence they have obtained considerable profit. The planters of Surinam are very enterprizing, and are greatly assisted by the unbounded credit which they obtain at Amsterdam at the rate of 6 per cent. This colony would have made a much more rapid progress, had it not been for the Maroon negroes, with whom the inhabitants are at perpetual war. The company maintains at Surinam two battalions of 600 men each, and one corps of artillery; which are almost entirely occupied in defending the posts against these negroes. The inhabitants also

(even

(even the Jews) are trained to arms, and are obliged to do military duty in cases of necessity. The colony produced, in 1768, 14,000 lbs. of coffee, 26,000 casks of raw sugar, each weighing 1000 lbs. 200,000 lbs. of cocoa, and 100,000 lbs. of cotton. It imports from N. America cattle, flour, salted-beef, cod fish, and in short all kinds of provisions, with various other articles: but no negroes. The colony is composed of about 50,000* slaves, and 4000 Whites, great part of whom are Jews,—for in no spot of the world do this people enjoy so many privileges.'

As, however, these statements are not recent, and as we gave large extracts from Dr. Bancroft's *Essay on the Natural History of Guiana* in our Reviews for March and April 1769 (vol. xl. p. 199.—p. 276.), and from the much later account of Surinam contained in Captain Stedman's Narrative, in our Reviews for April and May 1797 (vol. xxii. p. 427. and vol. xxiii. p. 65. N. S.), we shall not farther transcribe from the present details.

The Essay on St. Domingo includes a description of its situation, climate, soil, and productions; of the slaves and plantations; of the towns, of the internal trade, and of its commerce with the mother country and foreigners; of its situation during war; of its administration, finances, and religious establishment: but here, also, dates obstruct us. This Essay was composed twenty-six years ago; Mr. Edwards's modern and valuable history is before the public; and recent events have rendered old accounts of this island in a great measure obsolete.

In his introduction to this Essay, the author exclaims:

'While I am writing, the general peace is proclaimed, and yet the blood of Frenchmen flows again under the torrid zone. A mulatto, who had grown old in slavery †, disputes the sovereignty of St. Domingo with the hero who has given peace to Europe, and his bloody flag is unfurled against the victorious standards of the republic. He permits the Whites to live under his orders in a state of degradation, but murders them as soon as the government shews a wish to resume its power in the colony. Thus *a secret full of horror is brought to light.* The gift of liberty to the Blacks has now occasioned the massacre of the Whites, and involved their fields and cities in flames.'

Hence it may be inferred that M. Malouet's sentiments were against the emancipation of the negroes; yet he would modify their servitude.

In his papers on the colonial regimen, which are here collected together, the author's views on negroe slavery, and his opinion respecting the dangerous project of their emancipation, are more

* In 1777, they were reckoned at 66,000.

† Toussaint, who is said to have lately died in prison in France.

fully

fully displayed. These memoirs were presented to his government, in order to evince the necessity of forming a system relative to the colonies: but, being more interesting to the French than to us, we shall pass them over in silence.

At the end of this publication, we find a note highly complimentary to the English constitution and national character.

If much information is contained in these volumes, they also abound in repetition; and the work might have been considerably reduced in size, without any loss to the public.

Moy.

Art. VII. *Traité de Mecanique Celeste*, &c.; *i. e.* A Treatise on Celestial Mechanics. By P. S. La Place, Member of the Conservative Senate, of the National Institute, of the Board of Longitude, of the Royal Societies of London and Göttingen, of the Russian, Danish, and Italian Academies of Science. Vol. III. 4to. Paris. 1802. Imported by De Boffe, London.

The first part of this work contained the general principles of the equilibrium and motion of matter*; and their application to the heavenly motions led to the law of universal gravitation. In considering, in the next place, a system of bodies subjected to that great law of nature, by means of a singular analysis, the general expression of their motions, of their figures, and of the oscillations of fluids covering them, were exhibited: from which expressions were derived all the phænomena of the tides, of the variation of degrees, of gravitation at the surface of the earth, of the precession of the equinoxes, of the libration of the moon, of the figure and rotation of the rings of Saturn, and of their permanence in the plane of his equator.

'We have, then, deduced (says M. La Place) the principal inequalities of the planets, and especially those of Jupiter and Saturn; the period of which inequalities, comprehending more than nine hundred years, and offering to observers only anomalies of whose laws and causes they were ignorant, has for a long time appeared to form an exception to the theory of gravitation: but that theory, more thoroughly examined, has explained them, and receives one of its most striking confirmations from these anomalies. We have developed the variations of the elements of the planetary system, which are re-established only after a great number of ages. Amid all these changes, we have recognised the constancy of the mean motions, and of the mean distances of the body of that system which nature seems originally to have disposed for eternal duration, by the same views which appear so admirably to guide her on the earth for the preservation of individuals and the perpetuity of species. From the single circumstance of these motions being di-

* See Appendixes to M. R. vols. xxxi. and xxxii N. S.

rected by the same law, and in planes little different, the orbits of planets and of satellites must always be nearly circular, and little inclined to each other. Thus, the variation of the obliquity of the ecliptic to the equator, constantly confined within narrow limits, will never produce a season of perpetual spring on the earth. – We have proved that the attraction of the terrestrial spheroid, continually bringing back to its centre the hemisphere which the moon presents to us, transfers to the rotatory motion of this satellite the great secular variations of its motion of revolution, and excludes the other hemisphere for ever from our view. Finally, we have demonstrated, concerning the motions of the first three satellites of Jupiter, this remarkable theorem; viz. that, by virtue of their mutual action, the mean longitude of the first seen from the centre of Jupiter, *minus* three times that of the second, and *plus* twice that of the third, is exactly and constantly equal to two right angles, so that they can never all be eclipsed at the same time. It remains for us to consider particularly the perturbations of the motions of planets, and of comets round the sun; of the moon about the earth; and of satellites about their respective planets.'

The particular object of the present volume, called the second part, is the perfection of astronomical tables by means of the deductions and results obtained from theory. From the present great improvement of physical astronomy, for which the mathematical world is much indebted to M. La Place, the tables may be expected to receive a proportional accu acy; since their correctness seems to have kept pace with the progress of that science which is their base. In times prior to Copernicus, they were imperfect: but, from the discoveries of that great man, in the middle of the sixteenth century, astronomical science assumed a new appearance. Then followed the celebrated age, the age of literature, of the fine arts, and of science. *Kepler* discovered the elliptical motion of the planets; *Galileo* availed himself of a fortunate accident, and invented the telescope; *Huygens* applied the pendulum to the measure of time; and, to accompany and aid these discoveries and inventions, new instruments of thought and reasoning were constructed. *Napier* invented logarithms; *Descartes* improved the algebraical analysis; and *Newton* laid the foundations of the differential calculus and of physical astronomy. The fabric which was thus begun, the labours and genius of mathematicians of the eighteenth century have augmented; and these labours, *Bradley*'s discoveries, the construction of astronomical instruments, of watches, and of achromatic telescopes, the measurement of the earth, the discovery of the *Georgium Sidus*, of his satellites, and of two satellites of Saturn, render the eighteenth century not unworthy of that which preceded. The present has commenced with happy auspices, the discovery of the planets Ceres and Pallas. The proximity of these two very small bodies to

Jupiter,

Jupiter, and the excentricity and inclination of their intersecting orbits, produce in their motions some considerable inequalities, which will throw new light on the theory of celestial attractions, and afford the means of rendering it still more perfect.

Those who are acquainted with the preceding volumes of the *Celestial Mechanics*, and with the difficulty of their subject, will readily excuse us for not attempting an analysis of the volume before us. We must confine ourselves to a statement of the contents, as briefly announced; and to an extract or two, in common language, relating to facts and circumstances which may be considered as generally interesting.

The principal subject of this part of the work, as we have already stated, is the particular theory of the Heavenly Motions. Chapter 1. is intitled, Formulas of the Planetary Inequalities dependent on the Squares, and on the superior Powers of the Excentricities and Inclinations of Orbits. 2. Inequalities dependent on the Square of the disturbing Force. 3. On the Perturbations arising from the Ellipticity of the Sun. 4. On the Perturbations of the Motions of the Planets by the Action of their Satellites. 5. Considerations on the Elliptical Part of the Radius Vector, and of the Motion of the Planets. 6. Numerical Values of the Quantities which enter the Expressions of the Planetary Inequalities. 7. Numerical Expressions of the Secular Variations of the Elements of the Planetary Orbits. 8. Theory of Mercury. 9. Theory of Venus. 10. Theory of the Motion of the Earth. 11. Theory of Mars. 12. Theory of Jupiter. 13. Theory of Saturn. 14. Theory of Uranus. 15. On certain Equations of Condition which exist between the Planetary Inequalities, and which may serve to verify them. 16. On the Masses of the Planets, and of the Moon. 17. On the Formation of Astronomical Tables, and on the Invariable Plane of the Planetary System. 18. On the Action of Stars on the Planetary System.

Book 17th. On the Theory of the Moon.—Chapter 1. Integrations of the Differential Equations of the Lunar Motion. 2. On the Lunar Inequations arising from the non-spherical Form of the Earth and Moon. 3. On the Inequalities of the Moon arising from the Action of the Planets. 4. Comparison of the preceding Theory with Observations. 5. On an Inequality of a long Period which appears to exist in the Moon's Motion. 6. On the Secular Variations of the Motions of the Moon and Earth, which possibly may be produced by the Resistance of an Ethereal Fluid surrounding the Sun.

The

The following extract is taken from the chapter on the Theory of the Moon:

'My object in this book (says M. La Place) is to shew, in the sole law of universal gravitation, the source of all the inequalities of the lunar motion; then to avail myself of that law, as an instrument of discoveries, to render more perfect the theory of the lunar motion; and thence to deduce several important elements of the system of the world, such as the secular equations of the moon, its parallax, that of the sun, and the earth's oblateness. An advantageous choice of co-ordinates, of approximations well conducted, and of calculations made with care, and several times verified, ought to give the same results as observation; if the law of gravity, according to the inverse square of distances, be the law of nature. I have, then, applied myself to complete those conditions which require very deliberate consideration; and the omission of which is the cause of discordances presented in the known theories of the moon. In these different circumstances, consists the real difficulty of the problem. We may easily imagine a great number of various and new means of putting it into an equation: but the discussion of all the terms which, though small themselves, acquire a sensible value by successive integrations, is the most difficult and the most important point, when it is proposed to bring together theory and observation: which ought to be the principal object of analysis. I have determined all the inequalities of the first, the second, and third order, and the most considerable inequalities of the fourth, in carrying the precision even to the quantities of the fourth order inclusively, and in keeping those of the 5th order, which independently presented themselves. To compare my analysis with observations, I have considered that the co-efficients of Mason's lunar tables are the result of the comparison of the theory of gravity with eleven hundred and thirty-seven observations of Bradley, made in the interval between 1750 and 1760. *Burg*, a distinguished astronomer, has lately rectified them by means of more than three thousand observations of Maskelyne, between the years 1765 and 1793. The corrections which he has made are not very considerable: but he has added to them new equations indicated by theory. The tables of these two astronomers are arranged in the same form as those of *Mayer*, of which they are the successive improvements; for with regard to that celebrated astronomer, we must in justice observe, not only that he first formed lunar tables sufficiently precise to serve for the solution of the problem of the longitude, but moreover, that Mason and Burg have drawn from his theory the means of improving their tables. The arguments are, there made to depend one on another, in order to diminish their number: I have reduced them, with particular care, to the form which I have adopted in my theory; that is to say, into sines and cosines of angles increasing proportionally to the true longitude of the moon. In comparing the co-efficients of my formulas, I have had the satisfaction of seeing that the greatest difference which, in Mayer's theory, (one of the most exact that have hitherto appeared,) rises almost to an hundred seconds, is here reduced to thirty relatively to Mason's tables, and under twenty-six relatively to Burg's tables,

which

which are still more precise. This difference would be diminished, in estimating the quantities of the fifth order that have influence, and which the inspection of terms already calculated is able to make known; and it is this that proves the calculation of two inequalities, in which I have carried the approximation even to quantities of that order. My theory, moreover, brings nearer together the tables with regard to the motion in latitude; the approximations of this motion are more simple and more convergent, than those of the motion in longitude; and the greatest difference between the co-efficients of my analysis and those of the tables is only six seconds, so that we may regard this part of the tables as being given by the theory itself. With respect to the third co-ordinate of the moon, or of its parallax, it has been with reason deemed better to form tables of it solely by the theory; which, considering the smallness of the inequalities of the lunar parallax, ought to give them more exactly than observations. The differences between my results on this point and those of the tables are such, then, as exist between my theory and that of Mayer, followed in this point by Mason and Burg: they are so small that they merit little attention: but, as my theory approaches more nearly to observation than that of Mayer, with regard to the motion in longitude, I have reason for thinking that it possesses the same advantage with respect to the inequalities of the parallax.

'The motions of the perigee, and of the nodes of the lunar orbit, afford also the means of verifying the law of gravitation. Their first approximation primarily gave to geometricians only half of the first of these motions; and *Clairaut* thence concluded that it was necessary to modify that law, in adding to it a second term: but at length he made the important remark that a farther approximation brought theory and observation to agree. The motion deduced from my analysis does not differ from the true one, by its four hundred and fortieth part; and the difference is not a three hundred and fiftieth part, with regard to the motion of the nodes.

'Hence it infallibly follows that the law of universal gravitation is the sole cause of the lunar inequalities; and if we consider the great number and extent of these inequalities, and the proximity of this satellite to the earth, we may conclude that, of all the heavenly bodies, it is the most proper for establishing this great law of Nature; as well as the power of analysis of that wonderful instrument, without which it had been impossible for the human mind to penetrate into so complicated a theory, and which may be employed as a means of discoveries as sure as observation itself.'

M. La Place then continues to state the advantages which may be derived from properly examining the periodic inequalities of the moon. He likewise shews to what cause the acceleration of the mean motion of the moon, indicated by the antient eclipses, is to be attributed. In speaking of the tables, to the perfection of which the calculations here given are specially destined, he says:

'The error of the tables, formed after the theory which I present in this book, will not exceed an hundred seconds, except in very rare instances;

instances; and therefore these tables will give, with sufficient exactness, the longitude at sea. It is very easy to reduce them to the form of Mayer's tables: but, as in the problem of the longitude, we propose to find the time which corresponds to an observed true longitude of the moon; there is some advantage in reducing into tables, the expression of the time in a function of that longitude. Considering the extreme complication of successive approximations, and the precision of modern observations, most of the lunar inequalities have hitherto been better determined by observation than by analysis. Thus, in borrowing from theory all that it gives with exactness, and the form of all the arguments; and in rectifying afterward, by the comparison of a great number of observations, whatever it gives by approximations which leave some uncertainty; we ought to obtain very precise tables. This is the method which Mayer and Mason have successfully employed; and lastly Burg, in following and in availing himself of the new progress of the lunar theory, has lately constructed tables, of which the greatest errors are under forty seconds. Nevertheless, it would be useful for the perfection of astronomical theories, that all the tables should be derived from the sole principle of universal gravitation, in borrowing from observation only the indispensible data. I presume to think that the following analysis leaves little to be done, in order to procure this advantage to the lunar tables; and that, by advancing still farther the approximations, we should soon obtain it: at least with regard to the periodic inequalities: for whatever be the precision used in calculation, the motions of the nodes and of the perigee will always be best determined by observation.'

We shall conclude with one short passage which is very curious: 'A remarkable astronomical epoch is that in which the great axis of the terrestrial orbit coincided with the line of the equinoxes: for then the true and mean equinoxes were united. I find, by the preceding formulas, that this phænomenon took place towards the year 4004 before the Christian Æra, a period at which the majority of our chronologists place *the creation of the world*; and which, under this point of view, may be considered as an astronomical epoch.' R.W.

ART. VIII. *Mémoires de l'Institut National*, &c.; *i. e.* Memoirs of the National Institute of Arts and Sciences at Paris. Vol. IV. in three Parts. 4to. Paris. 1802. Imported by De Boffe, London.

IN continuing to follow the steps of this active body, we shall commence our present operations, as we did with regard to the last volume, by first paying our respects to that division of the work which is allotted to the

MATHEMATICAL SCIENCES. 4to. pp. 700.

HISTORY.—*Historical Notice of Charles Louis L'Heritier.* By M. CUVIER.—These short notices are not mere testimonies

of respect towards the deceased, but contain many pleasing anecdotes, useful facts, and just reflections. The object of them claims attention and respect for his knowlege, for his zeal, for the liberality with which he spent his fortune in the advancement of science, and for his melancholy and mysterious end. *L'Heritier* was born to a considerable fortune, and to that situation of life in which true happiness is most generally found: a station much above poverty, yet too low to command any prospects of great ambition. Not choosing, however, to seek happiness in indolent repose, he cultivated the sciences, and braved the envy of his cotemporaries. His labours in botany are sufficiently known: but an anecdote is here related of him, which, though to some it may not be new, many others may be glad to learn. He purchased the herbal of *Dombey*, who returned in 1786 from Peru and Chili with a great collection in natural history; and he immediately put every thing in order, hired painters and engravers, and would soon have presented his treasure to the world, when the court of Spain, being about to publish the natural history of those countries which they had caused to be examined, felt desirous that the researches of *Dombey* should not appear first, and signified its wishes to the court of France. *L'Heritier* heard by chance at Versailles that an order had been given to *Buffon*, to take the herbal of *Dombey* into his possession. Alarmed at the news, he hastened to Paris; consulted his friend *Broussonet*; assembled twenty or thirty carpenters, whom he employed all night in making boxes; then, with the aid of his wife, *Broussonet*, and *Redouté*, packed up the herbal, and, early in the morning, set out for Calais, with his valuable luggage, and never rested till he touched English ground.

L'Heritier did not return to Paris till after the Revolution; and then, according to his biographer, having been struck with the noble use to which Sir Joseph Banks is well known to put his library, he imitated our munificent countryman, daily entertained the learned, and granted them the free use of his books. M. CUVIER also adds that *L'Heritier*'s botanical library was the most complete of its kind in Europe.

When called to the magistracy, *L'Heritier* was inflexibly rigid in the discharge of its duties. The authors of his death, and the motive for it, are unknown: but, departing late in the evening from the Institute, he was found the next morning near his house, slain with several blows from a sabre.

Historical Notice respecting Hilaire Francis Gilbert. By the Same.—The subject of this memoir was distinguished for his knowlege in agriculture; and the most important event of

his life was his mission to Spain, to purchase Spanish sheep *. In the treaty which succeeded the short war between France and Spain, one article ceded St. Domingo to the French; or more properly, according to the expression of the biographer, *permitted* the French to conquer it; and another article, which was kept secret, and which was more beneficial to the French, gave them the privilege of purchasing in Spain several thousands of those sheep, whose excellent wool at present supplies almost all their cloth manufactures. In the execution of the important commission of purchasing these sheep, *Gilbert* died, among the mountains of Leon.

Historical Notice of John Charles Borda. By M. LEFEVRE GINEAU.—The name of *Borda* is well known, and will be ever dear to the cultivators and friends of science. It is a remarkable fact, that three of the four persons celebrated in this volume would not submit to the occupation and profession pointed out to them by their parents. *Borda*'s father destined him to the law, but his inclination led him to mathematics, and mathematics he was determined to study. *D'Alembert* thought highly of his early genius, and, at the age of only 23, he presented a memoir to the Academy of Sciences. He did not spend his life, however, in merely speculative pursuits. He was employed in the French navy: he persuaded the minister to have all ships of war built from the same model, after that model had been approved by proper persons: he was appointed to ascertain the situation of Teneriffe, where Captain Cook met with him: in 1782, he commanded the *Solitaire* of 64 guns, in which he was captured by the English: he made great improvements in artillery; he invented the instrument still called after his name, *the circle of Borda;* and his last occupation was the determination of the length of the earth's circumference:—he lived just long enough to see this great work finished, dying in February 1799. Nearly all the improvements in the French navy are to be attributed to *Borda.*

Historical Notice of John Darcet. By M. CUVIER.—Having been disinherited by his father, for disobedience in the choice of his profession, *Darcet* was fortunately introduced to *Montesquieu*, and was patronized by that great man. He moreover enjoyed his confidence in the highest degree; as a proof of which, M. CUVIER relates a fact which can scarcely be called curious, since many such have happened, but which is certainly interesting: 'Montesquieu, vainly solicited on his deathbed to retract those opinions in his book which were not conformable to prevailing sentiments, perceived that those who

* See a farther account of that transaction, in the ixth Art. of this *Appendix.*

besieged

besieged him, despairing of success, would at least attempt to slip in among his effects some paper containing a retractation, and which would be produced as his writing when he was dead. His relations were gained over, and most of his friends were absent: he therefore had recourse to *Darcet*, and gave to him the keys of his manuscripts: but the latter was even obliged to employ force, in order to prevent their being taken from him. This last act, by which his friend in some degree bequeathed to him the care of his honour, so powerfully affected him, that, among all the events of his life, to this he was most fond of recurring, and never without the liveliest emotion.'

Darcet cultivated the sciences of medicine and chemistry; was author of many improvements in the Sèvre and Gobelin manufactories; and invented that composition which is now used in the stereotype printing. In his private character, he appears to have been modest, simple, affable, not ambitious of being deemed a great man, but desirous of being a benefactor to society. Had he valued fame more and friendship less, he might have risen to greater elevation among his cotemporaries, and been distinguished by their jealousy.—This notice is composed, in our opinion, with much ability.

MATHEMATICAL, ASTRONOMICAL, *and* METEOROLOGICAL MEMOIRS.

Researches concerning the Integration of Equations of partial Differences, and the Vibrations of Surfaces. By M. BIOT, Associate.—The subject of this memoir is of great difficulty; and notwithstanding the labours of many learned mathematicians, it still presents many points and parts which require elucidation and improvement. One of the objects, proposed to be attained by M. BIOT, is the resolution of some questions which relate to the generality that belongs to integrals of partial differential equations.

The author commences his investigations by proving that a partial differential equation of any order whatever, between any number of variables, is always susceptible of an integral, expressed by a finite or infinite series, and completed by a number of arbitrary functions equal to the index of the order of the equation: each of these functions comprehending as many independent quantities as there are variable quantities, minus two, in the proposed; which fixes the extent that general integrals ought to have. This result is obtained by expanding the value of the principal variable quantity into a series, by means of Taylor's theorem; and the generality which it bears is demonstrated by the indetermination of a suitable number of the first terms of the series.

As an example of the use of his inquiries, M. BIOT applies them to the determination of the motions of vibrating surfaces:

'In considering (he says) the vibrations of sonorous chords, philosophers and mathematicians have noticed and explained many interesting phænomena relative to the creation of sound, and to the figures assumed by chords during their motion. The vibration of surfaces, not less interesting, but much more difficult, equally deserves attention: nevertheless, very few analytical researches exist on this subject. *Euler* appears to have been the first who turned his attention that way. In the 10th volume of the Petersburgh Memoirs, he considered the vibrations of an elastic rectangular plane: but the difficulty of the integrations, and even the impossibility of them in finite terms, did not permit him to obtain results that could be compared with experiments. In order to arrive at equations of these motions, he considers the vibrating surface as formed of strings or small chords crossing each other at right angles. He obtains, by the ordinary methods, the vibration of these strings; and by diminishing their intervals, he thence forms the vibrating surface. This mode of treating the problem is undoubtedly very ingenious, but it is more satisfactory, perhaps, geometrically than physically: for a person may with propriety doubt whether a surface, composed of any elementary surfaces whatever, would vibrate like a stretched cloth or net, the threads of which are made indefinitely to approach each other. Nevertheless, the hypothesis is exact: for I have been led, independently of every particular consideration, to the same equation with *Euler*.'

M. BIOT then proceeds to state that the researches of experimental philosophers * have been more fortunate than those of geometricians; and M. *Chladny* is mentioned as having made some excellent experiments relative to the vibration of surfaces. The object, considered mathematically, presents great difficulties, chiefly with regard to the integrations; and the hope of avoiding these difficulties in part was only entertained, says the author, till it had been shewn that the most intricate results of celestial mechanics could be deduced from one and the same equation, of which the general equation is possible only by series.

Having obtained the equations of the movement of any vibrating surfaces, the author considers the particular case in which the surface is plane and the elasticity constant; and he deduces the same equation with that of *Euler* in the Petersburgh Memoirs. This equation, a partial differential of the second order, with four variables, has not a general integral in finite terms: but M. BIOT forms from it an infinity of

* It is almost impossible not to feel indignation at being continually compelled to express circumlocutorily, and inadequately, the meaning which the French convey by the single word *physicien*.

particular integrals, among which is found, as a particular case, that which *Euler* has exhibited.

Resuming the series, which is the general integral of the equation, M. Biot introduces conditions relative to the immobility of the limits of the surface, supposed to be rectangular. He shews that, if one of the sides of the rectangle be divided into any number of equal parts, and at the first point of division a bridge (*chevalet*) be applied parallel to the adjacent side; the surface, during its movement, will be divided into as many rectangles as there are equal divisions; and these rectangles will vibrate independently of each other: the sides, which are common to them, two and two, remaining at rest. Hence it follows that, if the two sides of the rectangle be divided into equal parts; and, at the first point of division, beginning from the same angle, two bridges (*chevalets*) be applied parallel each to the adjacent sides of the rectangle; the surface, during its motion, will divide itself into squares vibrating independently, the right lines which limit them remaining at rest; and the number of these squares is equal to the product of the numbers, denoting the divisions made on the sides.

Investigating the time, after the expiration of which all the points of the surface will return simultaneously to their original position, M. Biot finds that the time depends on the initial figure of the surface.—It is to be observed that these results, although obtained by the consideration of series, have, nevertheless, all necessary exactness; since they depend on the form, and not on the convergency of the series.

Such is a brief and imperfect account of this learned memoir: the subject of which is hereafter to be resumed.

Memoir on the solstitial Distance of the Sun from the Zenith, in the Tropic of Cancer, in 1796 *and* 1797; *and on the secular Diminution of the Obliquity of the Ecliptic.* By M. Duc La Chapelle.—These observations were made with *Lacaille*'s sextant of six feet.

Observation of the Summer Solstice of the 9th Year (1801), *made at Montaubon in the Department of Lot, with the Sextant of the Abbé Lacaille.* By the Same.

Meteorological Observations made at Montmorency near Paris, during the 5th Year of the Republic. By M. Cotte.

Mean Year concluded from Meteorological Observations made at Paris during 33 *Years,* 1763—1781, and 1783—1796; by M. Messier; and at Montmorency during 29 Years (1768—1796); by M. Cotte.

Researches concerning the greatest Degrees of Heat which have occurred at Paris from 1682 *to* 1794. By M. John Dominic Cassini.—The heat which is here the subject of consideration

is absolute or thermometrical heat: sensible heat, or heat felt by the body, cannot be submitted to calculation; though it does not always vary, as the author observes, with absolute heat, but depends on the state of the air, chemically considered, and on the season of the year.

What is meant by the hottest year? Here a definition must be laid down, arbitrary in some degree, yet conformable to common notions. M. CASSINI defines the hottest year to be that in which the thermometer has ascended most frequently above a certain degree, at which the heat commences to be generally felt.—He observes that, when the thermometer (Reaumur's) is between 18° and 20°, (72 and 77 of Fahrenheit,) the day is allowed to be *hot*: when at 24 or 25, (86 or 88 of Fahrenheit,) the day is *very* hot; and when it rises to 30° (or 99), the heat is then uncommon. This remark bears reference to places in the latitude of Paris.

Among these observations, M. CASSINI thinks that he discerns a law by which a scale of comparison may be established, applicable to every kind of thermometer; and the law is this: If we suppose a thermometer, in any way divided; then take, for unity, the interval between the freezing point and the point for the temperature of deep cellars; then double it, and we have the term at which mean heats begin:—if we add half of the first interval, we have the term at which great heats begin;—and if we add again a third of the first interval, we have the term at which extraordinary heats begin. According to this law, M. CASSINI has constructed tables which exhibit the necessary results for a comparison of the heat of the several years; and from these tables he concludes the year 1701 to have been the year of the greatest heat: that is, the summer in which the *sum* of heat was the greatest.

M. CASSINI found more difficulty in resolving the second question; or, in determining the year in which the heat was *simultaneously* the greatest. He concludes, however, that the year 1793 (in which the thermometer was above 100°) was the hottest. With the resolution of this question, he closes the memoir; in which, he justly says, 'he has endeavoured to introduce certain interesting remarks on the observations and instruments employed during a long period of years, relatively to the determination of heat and cold: a determination which this memoir proves not to be so simple, and so easy in practice, as at first sight it might appear to be.'

Journal of the Rising and Falling of the River, in Paris, observed at the Bridge of the Tournelle during the 5th Year of the Republic: presented by M. COUSIN.—This journal is arranged in the form of tables. We do not perceive that it affords any important or interesting result.

Memoir

Memoir occasioned by a Work, presented 11 *Fructidor Year* 6, *by M. Maignon, Lieutenant in the Navy, intitled, Memoir containing Theoretical and Practical Explanations of a Trigonometrical Chart, intended for the Reduction of the apparent Distance of the Moon from the Sun or from a Star into true Distance, and for the Resolution of other Questions in Navigation.* By M. LEVÊQUE. —The author of this paper, previously to passing judgment on M. *Maignon*'s charts, introduces a short preliminary dissertation on the progress of the art of navigation, and on the several methods of determining the longitude. Speaking of the method of ascertaining it by watches and time-keepers, he cannot forbear from obliquely censuring the English for deficiency of real zeal in the cause of science. 'Our artists,' he says, 'have indefatigably laboured to determine the longitude by time-keepers, from motives of pure patriotism, not excited by the powerful agency of national recompence. The success of *Pierre Leroy*, of *Ferdinand Berthoud*, and of *Louis Berthoud*, is known to all Europe. The Academy of Sciences having proposed, as a prize-subject, the construction of a watch for finding the longitude, many artists became candidates; and a simple academical prize, the value of which could in no degree indemnify its possessor for his necessary expences, effected among a *generous nation* that which *elsewhere* could be obtained only by the promise of great rewards.'— Yet, if our artists be not so *liberally minded* as the French, is it not a fact that their watches are better; and to what ought we to attribute this circumstance?

In discussing, however, the method of finding the longitude by lunar distances, the author relates the labours of Dr. Maskelyne, and speaks with justice of that excellent astronomer. With M. *Lefevre-Gineau*, (see p. 498.) he attributes all improvement in the French marine, after *Lacaille*, to *Borda*.

With regard to the graphical charts of M. *Muignon*, M. LEVÊQUE does not present to the class all the details of their construction, but contents himself with saying that the principles of the author are exact, and that the results which can be furnished by his chart are sufficiently accurate for practice; 'the results which *may* be furnished, (he says,) and not those which are *necessarily* furnished; for, the use of this chart requiring care, dexterity, and practice, it is plain that the results must depend on the union of these circumstances. This is one of the inconveniencies of graphical methods, from which calculation is entirely exempt.'

M. *Maignon* formerly published a method for finding the latitude from two observations, and the time between. His

new chart, the occasion of the present memoir, is applied to the solution of this important problem.

After having passed very high eulogiums on the ingenuity, zeal, and industry of M. *Maignon*, the writer proposes this question: Ought Graphical Methods to be diffused and encouraged among Navigators? Part of the answer to this query contains, in our opinion, much good sense, and therefore we here exhibit it:

'Undoubtedly, we must have methods adapted for all capacities: but it cannot be dissembled that graphical and instrumental methods, however learned and ingenious, have one dangerous quality, viz. they habituate to an operation, which is in some degree automatical, men who are already too much inclined that way. This operation, besides, requires an apprenticeship, which creates no disposition for the acquisition of other knowlege. It may be objected that the case is the same in trigonometrical operations, where the operator is ignorant of the theory: but this comparison is not exact; dexterity in computation is indispensible for many other nautical objects: it is necessary always to acquire it, even if we understand the theory of the methods: it is an essential preliminary. The establishment of examinations has compelled navigators to depart from their usual habits; they have become familiarized to calculation; and already the good effects of this alteration are felt. Would there not be some danger of bringing them back to their former state, in proposing to them mechanical methods, under the specious and false pretext of a greater simplicity? If we consider these methods with reference to their theory, it will be found more complicated than that of rigorous methods, which they necessarily suppose. With regard to time and facility, it is not yet evident that much is gained on this score: they are not entirely independent of calculation: for it is still necessary to calculate, and moreover to perform manual operations with dexterity.'

These are very just and proper remarks; and the following passage, which supports the claim of pure science to the honour of having raised navigation to its present perfection, is written with spirit and animation:

'It is time, then, that mariners should cease to regard the mathematical and physical sciences as useless to the practice and advancement of navigation. Without the aid of science, navigation would now have been in its infancy. Every observing mind must acknowlege the perfection due to an unceasing and continually improving practice: of which the arts and the most common trades offer abundant examples: we may especially discern such instances in different branches of naval skill, in the construction of vessels, in their rigging, in their manœuvres, evolutions, &c.: but towards the sublime art of navigating a vessel, and of assigning its position for every instant of time, all the efforts of mere practice, in all their continuance, never did and never can contribute. It is not that blind and servile routine.

tine-practice, which has produced various instruments successively employed in nautical observations, which has determined the figure of the earth and measured its size, which has afforded methods for the construction of charts, with the rules for using them, as well as learned and ingenious methods for the reduction of courses, and for the solution of every problem that the maritime art can present:—it is to astronomers that mariners are indebted for the means of observing latitude and longitude; and it is to the same persons also that they are obliged for the tables of the heavenly motions, from which so many and such great advantages are derived.—It must be granted that not a single important discovery of this nature is due to a navigator, considered as a mere seaman. All that is grand, all that is excellent, all that is useful, in this part of the marine art, belongs exclusively to the sciences; simple practice cannot go so far.'

In definitively stating the judgment of the class, M. LEVÊQUE says 'that M. *Maignon* merits commendation, because his method is ingenious, and at the same time the most exact of graphical methods hitherto proposed.' 'We think, too, (he says,) that the method may be often useful in correcting and verifying calculations already made: but, at the same time, we say that navigators ought not to deem this mechanical mode so valuable that the acquirement of methods of calculation may be omitted; on the contrary, they ought to practise themselves more and more in calculations, and to reserve graphical methods for the purpose of verifying their operations.'

Observations; 1. *On the great Heat, Dryness, and Diminution of the Waters of the Seine, at Paris, during the Months of July and August* 1793, *compared with the Heat observed in the preceding Years, reckoning from* 1753. 2. *On the direct Heat of the Rays of the Sun on the Thermometers in* 1793. 3. *On the Heat of Water exposed to the Sun in a Bottle of very thin Glass, in* 1793. By M. CHARLES MESSIER.—This memoir has been written (though not in its present enlarged state) a considerable time; and it was presented to the former Academy of Sciences in 1793. It contains a particular description of the great heats, with their effects, which happened in July and August in that year; and also of the terrible storms which occurred in those months. M. MESSIER observes, with *Cassini*, that the least supportable heat was not when the thermometer was highest, but after it had fallen; and that it came in blasts or puffs, which rendered respiration very difficult. The paper contains many facts of which the meteorologist may usefully avail himself.

New Method of determining the Inclination of a Magnetic Needle. By M. COULOMB.—This is a short memoir, but we cannot

cannot, in few words, explain the construction and its principles, such as M. COULOMB sets them forth: we must therefore recommend a perusal of the paper to those who are interested in these inquiries.

so far
R.W.

Of the other papers in this volume, we propose to make our report at a subsequent opportunity; and we shall now turn our attention to the volume which is appropriated to the

MORAL AND POLITICAL SCIENCES. 4to. pp. 700.

In the HISTORICAL part of this volume, we find a brief notice of the *changes* which have taken place in the Society by the death of several members; among whom the pen of *La Lande* has recorded the fate of *Joseph de Beauchamp*, formerly his pupil, and since a brother astronomer. After various dangers and instances of ill fortune in the course of his peregrinations in Asia, he died at Nice, on his return, in November 1801, aged 49.—The history of *the Labours of the Class* contains a great number of particulars; some of them interesting, as announcing works of importance, and others which do not call for general attention. We can mention only a few.—M. *Dégérando* is reported to have presented two memoirs on the subject of *Pasigraphy*, (mentioned in vol. 3.) in which he expresses a decided disapprobation of the attempt to form an universal language, as liable to occasion false associations of ideas, and to augment the already too great abuse of language: denying also the probability that this is likely to become universally prevalent, and maintaining that several advantages arise from a diversity of idioms.

M. *Grégoire* communicated an account of the *Vosges*, a chain of mountains in Lorraine, now giving name to a department of France, and of the manners and character of the inhabitants. It appears to be worthy of some notice, but it is reported with unsatisfactory brevity.

A more extended analysis is given of various papers transmitted by M. *Dupont*, containing his observations in a tour in North America, chiefly relating to natural history, which seem to deserve attention; and some of which, as the writer of the account observes, are pleasantly intermixed with *badinage philosophique, à la mode Française.*

M. *Baudin*, a French naval officer, is stated to be about to depart on a voyage round the world; and some instructions for his conduct are here inserted, principally from the pen of the well known *Bernardin de St. Pierre.*

M. *Gosselin* has published Inquiries concerning the Geographical Knowlege possessed by the Antients respecting the Persic Gulf; in which he minutely follows the steps of Nearchus

Nearchus in his Periplus, and shews that the statements of this voyager, of Pliny, and of Strabo, are very nearly the same: allowing for the difference of the modes of measurement and calculations which they used. He is said also to have rectified some errors in the recent work of our learned countryman Dr. Vincent, on this subject; and to have thrown great additional light on both the antient and modern navigation of the gulf of Persia.

On turning to the biographical notices of deceased members, we come first to

An Account of James Ant. Creuzé-Latouche. By M. CHAMPAGNE.—We do not perceive that the character of M. *Latouche* was distinguished by any peculiar brilliance of talent, nor do the circumstances of his life afford much interest. He appears to have been of an amiable and philanthropic turn, and to have regarded less the advancement of his fortune, than the enjoyment of ease and domestic comfort. He paid particular attention to agricultural pursuits, and is also represented as a man of general observation. He was a member of the Agricultural Society of Paris, and, after the revolution, was elected to a share in the management of the political concerns of his country. In the year 1791, he wrote a work intitled *Description Topographique du District de Chatelleraut*, and left several manuscripts of merit, many of which at the time of his death were nearly finished. He was born at Chatelleraut in the year 1750, and died in 1801, very soon after his return from a tour over Holland and the left bank of the Rhine, of which he intended to publish a narrative.

Historical Account of Legrand D'Aussy. By M. PETER CHARLES LÉVESQUE.—'The life of M. *D'Aussy*,' says his biographer, 'may, like that of the greater number of literary men, be comprised in two lines. What places did he frequent? *Libraries.* How did he live? *With books.* What did he do? *Write books.* Of what did he talk? *Those things which are found in books.*'

He was born at Amiens in the year 1737, was educated at the Jesuit's College, and was at an early period appointed professor of rhetoric at Caen, where *La Place* was his pupil. After the destruction of his order, he went to Paris, where he was for some time occupied in the composition of the *Glossaire Français.* In 1770, he was appointed secretary for the direction of studies to the military school at Paris; and he was afterward employed in educating the son of a farmer general, and in co-operating with several others in the *Bibliothèque des Romans.* In 1779, he published a translation of the *Fabliaux*

of

of the older poets; in 1782, his *Histoire de la Vie privée des François*; and in 1788, his *Voyage en Auvergne*.—He also presented several valuable memoirs to the Institute; and, at the time of his death, (which took place in 1801,) he was engaged in writing a complete history of French poetry.

MEMOIRS.

Memoir relative to the Island of Madagascar. By M. LESCALLIER.—This island was visited by the author in the year 1792, in consequence of directions to inspect the possessions of the French government in the East Indies.

M. LESCALLIER describes the inhabitants as being better acquainted with agriculture than they were represented to be by the Abbé *Raynal*, and as having made considerable advances in many kinds of manufacture. The language, and many of the customs, he represents to be very analogous to those of Otaheite. The women are easily accessible: but they are stated by him to be very faithful to their engagements. This circumstance he understood, from a conversation with Lieutenant Roberts who accompanied Captain Cook, to be equally well founded with regard to the females of Otaheite, though it is certainly contrary to the commonly received opinions on the subject.

As it was the object of the author to bind the affections of the people of Madagascar to the French, he proposed that national friendship and attachment should be mutually sworn by him and the king. This was done with great solemnity on both sides: but M. LESCALLIER did not admit the barbarous form of an oath ~~being~~ practised, which had been almost the only one used before that time on solemn occasions, and which was called the oath of blood. He describes it to consist in the contracting parties respectively drinking, with many barbarous exclamations and imprecations, a mixture composed of blood drawn from each other's breasts, gunpowder, ginger, gold, and lead.

Fragments of Travels in India. By the Same.—This paper commences with a description of the Pagoda of Chalembron, one of the principal edifices of Hindostan; and it then gives an account of the Baliaderes or dancing girls, the mode of performing Indian plays, and the formalities of a religious feast, with the method of practising ablution in the Ganges. In their plays, the actors are all of the Brahman cast, and the female characters are always executed by men in the dress of women.

An Apology for Barthelemy de las Casas, Bishop of Chiappa. By M. GREGOIRE.—The object of this author is to remove the aspersions thrown on the character of *Las Casas* by *Herrera*, and

and many other writers; who have asserted that he proposed, with much inconsistency, to import negroe slaves from Africa, for the purpose of rescuing the Americans from the yoke under which they laboured.

Memoir on the Laws of Alaric. By M. BOUCHARD.—The result of these inquiries is, that this code was compiled from the Gregorian, Hermogenian, and Theodosian; and also from the works of Caius or Gaius, Julius Paulus, and Papianus.

Three Memoirs on the Constitution of the Republic of Athens. By M. PETER CHARLES LÉVESQUE.—In these very extensive dissertations, the author enters into a detail of the peculiarities of this celebrated republic, to which he annexes occasional observations of his own. It would draw us into great length of analysis, if we were to follow him through all his remarks, and the subject possesses no novelty to attract particular attention: though in France, perhaps, political considerations may impart temporary interest to the discussion.

Memoir on the Return of the Argonauts from the North. By the Same.—From some passages of a Greek poet who assumed the name of Orpheus, and from others in Diodorus Siculus, M. LÉVESQUE is disposed to conceive that the return of the Argonauts from their celebrated expedition was performed by the tedious route of the Baltic and the Straits of Gibraltar. He deems it probable that they reached the Baltic by coursing up the Tanais, now called the Don; crossing over to the Volga; ascending its stream and that of the Tvertza which joins it; carrying their barks overland to the Msta, and by this river passing up to Lake Ilmen, which is joined by the Volkof, to the Lake Ladoga. From the latter, the adventurers would soon arrive at the gulf of Finland and the Baltic, by means of the Neva.—The author attempts to shorten and facilitate this route, by supposing that the Black Sea was at that time joined to the Caspian, into which the Volga is disembogued; or, if the separation had taken place at a more early period, that there were more direct communications northward by water, than are found to exist at the present time.

Researches concerning the Island of Juan de Lisboa. By M. BUACHE.—This island has been represented to be in about the 26th or 27th degree of south latitude, near the meridian of Bourbon: but, though it has been described by many navigators who have seen it, others of later times have been unable to discover it. From a comparison of the various accounts, and an accurate examination of the different maps, M. BUACHE concludes

concludes that the islands of Juan de Lisboa and Romeiros are the same. The accounts of its position have been so contradictory, that he feels it difficult to determine its precise situation: but, from the variation of the magnet which was observed near it, and from an examination of the various situations which have been allotted to it, he seems disposed to place it between 65° and 70° of east longitude from the meridian of Paris, and between 25° and 30° of south latitude.

Observations on the Origin of the Venereal Disease, and on its Introduction into Alsace and Strasburg. By M. KOEH, of Strasburg.—The author of this paper endeavours to confirm the opinion of those who consider the disease as of American origin, by some local evidence derived from the annals of the province of Alsace, and of the city of Strasburg. He gives a general (though rather an incomplete) view of the controversy on this subject, in which he lays great stress on the authorities furnished by Spanish historians, respecting its appearance immediately on the return of Columbus from his first expedition; and the documents afforded in the libraries of Alsace and Strasburg agree in dating its existence in France, from the return of some soldiers who accompanied Charles the VIIIth in his campaigns in Italy. At its first occurrence, its progress was so rapid, that it was regarded by many as an epidemic which could be propagated without actual contact. Persons affected with it were objects of horror; and, as it was prohibited by the magistracy to give them refuge, or even to relieve them, many were suffered to die in the streets. The exertions of a benevolent citizen, *Caspa Hofmeister*, at length obtained for them the compassion of the inhabitants; and a hospital was soon established for their peculiar reception.

The principal cause of the great advances which this disease made in Europe, at its commencement, is ascribed by the author to the astonishing depravity of manners which universally existed at that period. Several striking instances of this fact are mentioned; and in almost every part of Europe, the Cyprian establishment was of such magnitude and importance, as to require the inspection and supervision of certain officers. The custom of licensing houses of a certain description was not unknown in this country in former times: but, in some parts of the continent mentioned by the author, the Cyprian corps had not only an exclusive privilege of exercising their profession, but the right of prosecuting those who interfered with it, not being legally qualified. In Strasburg, at the period of the introduction of the venereal disease, near the end of the 15th century, libertinism of manners had increased to so

great an extent, as even to connive at the appropriation of parts of the cathedral, and other places of worship, to the accommodation of courtesans. Persons thus privileged were distinguished by the appellation of cathedral swallows (*hirondelles de la cathedrale*); and it was not till the year 1521, that they were forced out by order of the magistracy. From the *arrêt*, of which a copy is given, it appears that fifteen days were allowed for these swallows to take their flight to other places assigned for them.

Account of a Literary Society which existed at Strasburg towards the Close of the 15th and the Commencement of the 16th Century. By the Same.—This society was established by James Wimpheling. It is supposed to have terminated in the great school which was founded in the year 1538 by Sturm, an *élève* of Wimpheling, which was afterward elevated to the dignity of an academy, and finally to that of an university.

Geographical Remarks on the Islands of Dina and Marsaveen. By M. BUACHE.—From the inspection of an antient map, and from various collateral considerations, the author is induced to conclude that the two islands, of which he here treats, are only one, answering to the modern island of Bourbon.

Memoir on the Morals of Cicero. By M. BOUCHAUD.

Memoir on the Morals of Seneca. By the Same.

In its more early and virtuous periods, the Roman republic entertained considerable distrust of the philosophy of the Greeks; and particular care was taken to prevent its dissemination in the metropolis. To so great an extent had the distaste to the introduction of philosophy and eloquence prevailed, that a decree of the senate was once obtained for the dismissal of Greek philosophers from Rome; because it was feared that, by the influence of their systems, the minds of the Romans (like those of the Greeks) would shortly be enervated: but the progress of wealth, power, and luxury, soon introduced a relish for mental gratifications; and the principles of morals, which had hitherto been few, simple, and practical, expanded into voluminous systems.

M. BOUCHAUD presents these memoirs as the commencement of an inquiry into the more prominent features of the Roman philosophy; and he proposes, in some future papers, to complete his view of the subject by an examination of the principles of Epictetus and Marcus Aurelius. Both Cicero and Seneca acknowleged the existence of the laws of nature, which they considered as eternal and immutable, and as the only proper foundation for every human institution. They also admitted the immortality of the soul, and the existence of a

future

future state, in which the virtuous should enjoy perpetual felicity: but it appears to the author that they possessed very indistinct and erroneous ideas respecting the final portion of the wicked.—Cicero rejected the fables of the poets with regard to Tartarus, and seemed to be of opinion that death would either make us happy or annihilate us. Seneca equally discredited the punishments of the infernal regions; and, in that part of his work in which he treats of this subject, he observes, "that death can operate on us only as annihilation or release: if the latter, we have nothing but happiness to expect: if the former, all is ended; good and evil no longer exist."

On the Use of Money in a large State. By M. Toulongeon.—The author here considers money as the common representative of every kind of wealth. He introduces a variety of discussions on the effects of its diffusion in different degrees among the members of a state; and at length he comes to the conclusion that it is advantageous to the public that it should be principally confined to the labouring part of the community: while the credit and confidence which result from the public opinion of individual character constitute the most convenient coin of the rich, and that which is best adapted for commercial intercourse.

Analysis of the different Opinions on the Origin of Printing. By M. Daunou.—This paper exhibits, at great length, the various opinions entertained on the subject which it treats, and concludes by stating that which the writer deems the most probable. He regards it as likely,

'That tabular printing which existed long since in China, was applied by the Europeans, towards the end of the fourteenth century, or the commencement of the fifteenth, to the printing of cards and figures:—that, before the year 1440, there were printed at Haarlem, or elsewhere, several collections of figures, with short inscriptions annexed to them, and afterward little books of devotion and school-books, particularly small grammatical abridgments called *Donats*:—that also before the year 1440, *Guttemberg* of Strasburg had conceived the idea of employing moveable types: but that this speculation had only given rise, in Strasburg and Mayence, to laborious, expensive, and unproductive trials:—that no book can be pointed out which was printed by *Guttemberg* at Strasburg; and that those *Donats*, which are supposed to have issued from his press at Mayence, come under the description only of tabular printing:—that every book printed before the year 1457 has either been executed by means of letters engraved on wood, or by those of cast metal, such as are now used;—and that the latter were probably invented by *Guttemberg*, or by *Faust*, undoubtedly brought to perfection by *Schoeffer*, and employed for the first time by *Schoeffer*, *Faust*, and *Guttemberg*, in printing

printing an edition of the Bible, consisting of about 637 or 640 leaves, without date.'

M. DAUNOU's paper is calculated, by its extensive research, to gratify those who are inquisitive on this point of history.

On the Metaphysics of Kant; being Observations on a Work on Pure Reason, *by J. Kinker, translated from the Dutch by J. le F.* 1 vol. 8vo. Amsterdam, 1801. By M. DESTUTT-TRACY.—The author does not here enter into an examination of the whole scope of the Kantian philosophy, but confines his observations to the ideology; from which, as the foundation of the system, he regards it as fair to form an estimate of the whole. He is of opinion that the reasoning on this subject is vague and inaccurate; and that the theory is pervaded by an affected and imposing obscurity, which is often, but erroneously, supposed to originate in philosophical acumen and profundity.

Vell.

see p. 506.

This memoir terminates the volume relative to the *Moral and Political Sciences*. In our next Appendix, we shall resume the consideration of the *Mathematical and Physical* volume, and attend to that which relates to *Literature and the Fine Arts*.

[*To be continued.*]

ART. IX. *Histoire de l'Introduction des Moutons*, &c.; *i. e.* A History of the Introduction of the fine-woolled Spanish Sheep in different European States, and at the Cape of Good Hope. With the real State of these Animals, their Number, the several Methods of rearing them, and the Advantages which they afford to Agriculture, Manufactures, and Commerce. With a Plate. By C. P. LASTEYRIE. 8vo. pp. 255. Paris. 1802. London, De Boffe. Price 6s. sewed.

MUCH has lately been written on the subject of *wool-bearing animals*; and Europe is under-obligations to those philosophical rural economists, who have made this valuable race their particular study. The labours of Lord *Somerville*, and the Drs. *Anderson*, *Parry*, &c. will occur to the English reader on the present occasion; and foreigners recount with equal respect the names of gentlemen abroad who have directed their exertions to the same object; of *Alstroemer* in Sweden, *Koenig* in Saxony, *Fink* in Prussia, *Magnis* in Silesia, *D'Aubenton* and *Gilbert* in France, *Twent* in Holland, and *Nelson* in Denmark. The present author, M. *Lasteyrie*, must now be added to this list: though he offers no new idea, when he maintains that 'the fineness of the Spanish wool does not

depend on the long journeys which the sheep are forced to take, nor on any peculiarity in the soil, climate, or pasture of Spain: but that it is owing to different causes; and that it is possible to obtain, in France or in any other country, wool of the same quality as that which is imported from Spain,' yet the many proofs which he adduces, in support of this position, may serve to encourage fresh experiments, and to facilitate the general naturalization of the *Mérinos* throughout the states of Europe. 'In my travels,' says he, 'through the northern parts of Europe, I found in general that the flocks carried fleeces, which to the eye and the hand seemed equal, in fineness and beauty, to those of Segovia and Leon; so that, according to my judgment, it is proved, beyond dispute, that it is possible to grow superfine wool in all those countries which furnish pasture, or where winter-food for sheep can be obtained.'

To establish this fact, he first gives a history of the introduction of flocks of the Spanish breed, or *Mérinos*, into Sweden, Denmark, Saxony, Prussia, the Austrian States, France, Holland, the Cape of Good Hope, Italy, and Great Britain; and, secondly, he details the different methods of treatment, in order to support this precious race and to prevent its deterioration.

That country which might have been supposed to have been the last, in making trials on the Spanish breed, was the first to commence these important experiments. M. *Alstroemer*, in 1715, endeavoured to improve the Swedish breed; and in 1725, he brought a flock of *Mérinos* from Spain into Sweden, where he naturalized and propagated this breed of sheep, though it had been imagined that it could only be maintained to advantage in warm countries. He was seconded in his exertions by the Swedish government; who in 1739 established an institution, and offered premiums, for the express purpose of keeping up and propagating this new race. Such was the success with which these measures were attended, as it appears from authentic documents, that the value of fine wool of the country sold to the public magazines, and to the manufacturers of Sweden, from 1751 to 1790, amounted to 3,402,961 franks; that the government has expended, during that time, in premiums, &c. to encourage this kind of industry, 1,413,450 franks; and that the quantity of fine wool, the actual growth of Sweden, exceeded the quantity imported from Spain, for the same period, by 779,920 lbs.

In his visit to Sweden, the present author ascertained the fact that considerable care and attention were requisite to prevent the Spanish race from degenerating. He examined many flocks of this breed in Sweden, and uniformly found that they lost their beauty, and that their wool became shorter, less fine,

and

and less soft to the touch, when they were in unskilful and inattentive hands; while the breed preserved all the primitive qualities of their wool, under intelligent and careful management. He remarked this fact also in Holland, and in several parts of Germany: but the circumstance of their degenerating, when neglected, ought not to discourage the agriculturist, since without proper care they are liable to deteriorate even in Spain.

The mixture of the *Mérinos* with the indigenous sheep of Sweden has injured the breed; while the difficulty of obtaining a sufficiency of food, in a country in which the severity of the weather obliges the farmer to keep his sheep in the stable for six or seven months together, throws great obstacles in the way of their multiplication. Nevertheless, as this species is more advantageous than any other, the number has been always increasing. In 1764, there were 65,369 of the pure breed, and 23,384 of the crossed breed; and at this time they amount, pure and crossed together, to about 100,000; which is $\frac{1}{25}$ of the whole number of sheep in the kingdom. The Spanish race, when habituated to the climate of Sweden, become larger and stronger than in their own country; and M. LASTEYRIE mentions rams which have produced fleeces weighing 13 lbs.

Similar observations are made respecting the introduction of the *Mérinos* into Denmark, Saxony, &c. with the advantages which have resulted from their naturalization; and the author gives also a particular account of the result of the experiments made with this breed in France: from which we learn that the French agriculturists were so anxious to grow fine wool, that the departments of the Lower Alps, Aveyron, Cantal, Drôme, Eure, Gaud, Upper Garonne, Léman, Upper and Lower Loire, Lot and Garonne, Mont Blanc, Moselle, Oise, Puy-de-Dôme, Rhône, Saone and Loire, Lower Seine and Marne, Tarn, and of the Mouths of the Rhône, solicited the government to procure sheep from Spain. This application of the French farmers has not been overlooked by their rulers: for the Directory, by a secret article in the treaty of Basle, claimed the privilege of drawing annually from Spain, for the space of five years, a thousand ewes and a hundred rams; though they at first neglected to avail themselves of it, till M. *Gilbert*, by a Memoir read at the Institute in the 6th year, awakened their attention to the subject. They then adopted this gentleman's ideas, and sent him into Spain to choose and purchase 5500 *Mérinos*: but, falling a sacrifice to chagrin and mortification, the object of his mission was imperfectly accomplished; he having purchased only 1000 sheep, which were sent to France after his death *.

* See an account of M. *Gilbert*, pp. 497, 498. of this *Appendix*.

Some time elapsed before this subject was resumed: but at last the Government was persuaded by the Society of Agriculture in the department of Seine, to take measures for obtaining from Spain the remaining 4500, which they were intitled to draw thence by the treaty of Basle; and a company was formed, and subscriptions made to defray the expence. These *Mérinos*, on leaving Spain, were to be conducted to different parts of the Republic; and, for the benefit of those cultivators who should be solicitous of obtaining any of this breed, they were to be sold by auction, and the place and time of sale announced in the public papers. The author informs us that, while his work was in the press, part of this number had been sold in the Departments, and that the remainder were expected to arrive at Paris.

It will be evident, from these facts, that the French cultivators are extremely desirous of improving their breed of fine-woolled sheep; and this account is concluded by a recommendation to the people to forward the growth of the raw material, by wearing only cloth made of wool produced by French sheep and of French manufacture. To strengthen this advice, the author quotes from the English papers an advertisement of the Lincoln ball, given to encourage the wool-trade, to which no lady was to be admitted unless she was dressed in stuffs of home-manufacture; and also Lord Somerville's "Address to the Board of Agriculture on the subject of Sheep *," in which his Lordship expressed his wish that his countrymen would enter into a resolution to banish the use of broadcloth, and casimeres, manufactured from wool of foreign growth.

In Holland, also, though its cold and marshy climate differs exceedingly from that of Spain, experience has proved that the *Mérinos* can be preserved healthy and vigorous, so as to produce fleeces of the best quality.

Even Italy, so long plunged in the lethargy of ignorance and fanaticism, seems to be rousing itself to useful exertion. 'There are now in Piedmont,' says this writer, 'many flocks of the pure and ameliorated breeds; and from some specimens of their wool sent to him, he pronounces very favourably of its beauty and fineness; recommending the actual establishment of a manufacture of fine cloth in the *arrondissement* [district] of Sacco, to stimulate the Piedmontese to a vigilant pursuit of this branch of rural economy.' Hence, and from every part of this work, we may judge of the zeal with which the French are urging the improvement of their agriculture and manufactures.

Great Britain was late in the introduction of the Spanish race; for which, various reasons are assigned. 'Prejudice

* See M. Rev. vol. xxxiv. N. S. p. 245.

in

in England, as in the rest of Europe (says the author), opposed the amelioration of the fine-woolled breeds. Her agriculturists were of opinion that the fineness of the wool depended on climate, soil, and pasture; and therefore they conjectured that the *Mérinos* would not succeed with them, or would give only fleeces of an inferior quality. Wool-staplers and clothiers were imbued with the same prejudices as the farmers, and adopted the same opinion, but were influenced by different motives. They were apprehensive that success in this point would diminish the benefits derived from foreign commerce.'—About twelve years since, however, a few of the Spanish sort were brought into this island; and compliments are paid by M. LASTEYRIE to those individuals who have led the way in recommending them to the attention of farmers. As no notice is taken of Dr. Parry's "Facts and Observations" * relative to this curious breed, we suppose that his ingenious work has not been circulated in France. The author observes that 'the Duke of Bedford, that spirited protector of Agriculture, Lord Somerville, President of the Board of Agriculture in London, the King of England, and some other cultivators, have procured *Mérinos*, and already these animals begin to propagate. It is delightful to see the head of an empire, and men distinguished by their influence, wealth, and knowlege, encouraging by all means in their power the most useful arts; and it is pleasant to behold a people raising a statue and striking medals in commemoration of services rendered to agriculture.'—The tributes paid by his countrymen to the Memory of Francis late Duke of Bedford, honourable both to the nation and to the illustrious individual who was the object of it, drew this remark from M. LASTEYRIE.

An extract follows, taken from Lord Somerville's work above mentioned, translated into French by M. *Pictet*; to shew the importance which is now attached in England to the introduction and propagation of the superfine-woolled race: but it is unnecessary for us to quote, at second hand, from works already before the British public, or to transcribe from a French table a list of the 14 different breeds of sheep most esteemed in England.

Having succeeded, as he hopes, in removing every prejudice against the fine-woolled Spanish sheep, and having demonstrated the fact that they are capable of being naturalized in the several countries of Europe, M. LASTEYRIE proceeds, in the second part of his work, to detail the several methods of treatment, pursued in different climates, in order to multiply

* See M. Rev. vol. xxxv. N. S. p. 234.

them, and preserve them from deterioration, and which have been sanctioned by the experience of the best farmers. For this purpose, we are required to attend to the practice of agriculturists in Sweden, Denmark, Saxony, the Austrian and Prussian states, in Holland, Italy, and particularly in France.

'In Sweden, (he remarks,) it is a prevalent custom to confine sheep in warm stables, where the air cannot freely circulate: but enlightened cultivators follow a different course. They have spacious *Bergeries*, or sheep-houses, from which they bring flocks twice a day into the open air, even in the most rigorous seasons; having found by experience that this practice contributes to preserve them in health. These *Bergeries* have windows, which are kept open during the day; and the doors of the entrances are composed of hurdles during the spring and the fine weather, through which the air freely passes. In the winter, the sheep are fed on hay, leaves of trees, barley and oat straw, pea-haulm, and the leaves and branches of hops. They give to each animal two pounds of hay, with the addition of some straw or leaves; and these are sometimes moistened with the residuum of the brandy distilleries. Occasionally, they are fed with oats and siftings of corn.

'The leaves collected for the nourishment of their cattle are those of the birch, willow, maple, alder, aspin, elm, oak, &c. They observe that leaves given in small quantities afforded a wholesome food for sheep; but that the carcase and the wool were both injured when they were administered in large quantities.'

Folding is rarely practised in Sweden, through fear of the lynx and the wolf; and the sheep are driven every night, even in fine weather, to the sheep-house.—'During the hot season, the flock is sheltered from the rays of the sun under trees, which grow in the meadows, or under the floors of their rural buildings, which are raised on blocks some feet above the ground; for it has been remarked that excessive heat is more injurious to these wool-bearing animals than excessive cold.'—'The best Swedish farmers regard salt as wholesome aliment for sheep, and give it to them both in wet and dry weather, often combining with it, wormwood, or other bitter plants; juniper berries, and even pitch, reduced to powder and mixed in the water, which is put into trunks of trees hollowed out for this purpose.'

Such is a specimen of the Swedish practice; to which we should willingly subjoin the details respecting the other countries, if our limits permitted.

The author introduces his account of the French management of the fine-wool-bearing race, with complaining that he had been refused, by the manager of the national agricultural institution at Rambouillet, those minutes which were necessary for his information; though, when travelling in foreign countries, he

he had never experienced similar reserve in the conductors of any public or private establishment. M. LASTEYRIE, however, was not discouraged: but, availing himself of the "Instructions respecting the means proper to be pursued, in order to insure the propagation of sheep of the Spanish breed, and to preserve their purity;" drawn up by that experienced agriculturist, M. *Gilbert*, (who was appointed to the superintendance of the flock at Rambouillet,) he has no fear of disappointing the expectations of his readers, especially as the rules there laid down are still observed. Though he was not assisted by the communications of the manager, he did not fail to make his own remarks while he remained at Rambouillet. He observed that the sheep improved in size in consequence of abundant food; that they were turned into the natural meadows, and into fields of clover and lucern after it was cut; and that in winter they were foddered with hay, rowen, lucern, clover, vetches, wheaten straw, oat-chaff, and some oats. 'It is to be wished,' he says, 'that they would substitute nourishing roots, such as potatoes and beet, for grain;' and he gives particulars relative to pasture, nourishment, drink, shelter, folding, coupling, weaning, cutting, shearing, and amputating the horns and tail.

The work concludes with an account of the method of marking the different sheep which compose the flock, in order to prevent confusion and to ascertain the pedigree of each individual; and a plate representing the ears of sheep, marked according to the mode here recommended, illustrates the system of notation. Mo-y.

ART. X. *Essais pour servir d'Introduction*, &c.; *i. e.* Essays introductory to a History of the French Revolution. By a Member of the Parliament of Paris. 8vo. pp. 208. Paris. 1802. Imported by De Boffe, London. Price 5s. sewed.

SATIATED as we have been with works of this kind, yet we perused these essays with interest; because they relate several particulars respecting the old government, as well as the revolution, which are not generally known. The former *regime* is here analyzed: its several parts, namely, its constitutional base, its legal administration, its military force, the order of *noblesse*, the established religion, &c. &c. and the state of manners at the period of its dissolution, pass in review; the causes of its subversion are stated; then the origin and progress of the revolution; and the whole concludes with dispassionate hints on the conduct to be pursued by wellwishers of their country.

The author says that he disapproved the revolution in all its stages, and he is, in course, the advocate of the former order of things: but he does not conceal the weak side of his cause, nor negative its defects, nor dissemble its deformities. He contends only that wisdom, and a regard to the public welfare, did not sanction the sentence which was passed on this system in a moment of general effervescence, but that the procedure was as ill judged and unjustifiable in itself, as it has proved calamitous in its consequences. This is the moderate line adopted by the present respectable *ci-devant* magistrate. Though a partisan, his pages are not loaded with invectives against individuals; he notes only those whose acts have consigned their names to universal and eternal execration; and he chiefly points his censures at measures. His reflections are those of a mind which has been mellowed by experience and extensive information; and his good temper and forbearing spirit will insure him the esteem of the reader whom he fails to convince.

His account of the rise of the parliaments, and of the steps by which they attained their ultimate form, is able, while his statement of their merits and demerits is impartial; and we believe that the claim to unsullied integrity, which he asserts on behalf of these superior courts, cannot be disputed. History, he says, represents these bodies as equally active in defending the legal authority of the crown, and in repelling its usurpations: they confined feodality within bounds, and were gradually bringing about the decay of that institution, which owed its origin to times of ignorance and anarchy: they enforced the respect due to religion, while they repressed the encroachments of the ecclesiastics; and they were the protectors of the people against the burthens which extravagant courts attempted to impose on them. The magistrates did not form so much a distinct order in the state, as a completely distinct class in society. They wore, even when not exercising their functions, a *costume* which bespoke the gravity of their station; and their manners were allowed to be, in general, pure and simple; though they were reproached with affecting disdainful hauteur, and a sullen superiority in their carriage and conversation, with which a consciousness of their birth, of their fortune, and of their power, inspired them.

In treating of the administration of justice under the old government, the author compares the antient mode with the trial by jury introduced by the Constituent Assembly; and he decides in favour of the former. Idolizing this institution, as we confess we do, yet we shall concede to this liberal magistrate, that we should not recommend its adoption to all nations

tions indiscriminately. Among a people without moral habits, without information, and little regarding public opinion, this institution would prove any thing but a benefit. Our ancestors are supposed to have shewn admirable caution in this respect; a caution at which the superficial may sneer, but which men of practical wisdom will admire;—they are supposed to have first introduced it, at least in its application to questions of real property, conjointly with the pre-existing mode of wager of battle. A farther concurrence is thought to be visible in the formula addressed to criminals, on putting them on their trial; which, it is imagined, originally ran thus; "How will you be tried? By God, or by your country?" that is, will you be tried by one of those modes of decision, (such as combat,) those various ordeals, which are considered as referring the matter to the judgment of God, or by a jury of your equals?

Among the objections which the foreign lawyer makes to the trial by jury, are—the *ex parte* view of the subject laid before the grand jury; its greater suitableness to a simple state of society than to the advanced one in which we live; its not being a written proceeding; its not admitting of an appeal; the fact of juries being less qualified than judges to sift intricate transactions, and to distinguish truth from falsehood; their being liable to be carried away by considerations *dehors* the law, and to yield to the feelings of the moment. Many of these objections lose their force when the modern practice of granting new trials, and the discretionary power of courts to change *venues*, are taken into consideration; and the arguments, which the author deduces from the fate that has befallen this institution in France, we do not consider as affecting the ground on which we have placed it. He labours under a great mistake, when he supposes that the praise given to the institution in this country is owing to its being contrasted with seignorial justice; and he ought to have known that seignorial justice was administered by means of a jury. This practice was not peculiar to our country, but the prevalent mode through Europe; an original privilege of all the gothic tribes, which they lost only in consequence of the usurpations of princes and grandees, in common with many other most important rights. Were not the *scabini*, in the courts of the lords in France, jurors?

The author relates an anecdote of Lord Mansfield, which we cannot credit. In a conversation at the house of the President *d'Ormesson*, at Paris, he is reported to have said that "the law of France, with the exception of three or four articles, appeared to him to have attained the highest possible degree of perfection, and that he should wish his own country *had the same law, forms,*

and tribunals, if wisdom had not recommended it to prefer an established order, though an imperfect one, to the dangers of innovation." We have not the least doubt that the sentiments of the venerable English Judge are here misrepresented; which might easily happen, without ascribing much blame to any party: he might understand and be understood imperfectly; or his complaisance might carry him beyond his impressions.

Respecting the state of manners previously to the revolution, the writer presents us with some passages which have more the graces of good composition than the attributes of just pictures; the descriptions of the courts of Louis XV. and of Marie Antoinette, and a thousand indisputable facts, do not perfectly harmonize with his representations.

Among the causes to which the revolution has been assigned, the author enumerates the economical reforms in the household of Louis XVI., the disregard of etiquette which was induced by the queen, the effects of the former civil wars of the league, the vengeance of the protestants, the writings of the philosophical sect, the progress of knowlege, and the alterations which it had occasioned in the ideas and sentiments of men. He examines each of these causes, and deems every one inadequate to produce the effect; and he ascribes the mighty desolation to the refusal of the Parliament of Paris to register the edict imposing the territorial and stamp taxes. Why, however, refer that which was the effect of *a combination of causes*, to any one in particular? Such an attempt from so sensible a writer excited our surprize.

The author declines the task of pointing out the means by which the potentates of Europe might have prevented the excesses of the revolution: but he will not allow that they made any attempts with this view. On the contrary, he charges them with having fomented the mischief, with abetting the proceedings of the revolutionists, and encouraging them in the lengths to which they went. He says that they severally promised themselves advantages from this policy; that England reckoned on seizing the commerce of France, on the conquest of her possessions in India, and on the ruin of her American colonies; that she hoped to secure ports in the Mediterranean, and to participate in the pleasure of vengeance: that Austria expected to recover Alsace, Lorraine, and French Flanders: that Holland calculated on adding some tons of gold to her stores; and that Russia and Prussia depended on being allowed to make a partition of Poland without molestation. He is at a loss to guess why Spain joined in this crooked policy; and why a prince of the house of Bourbon should, at the period of the revolution, choose to be represented at Paris by a minister who professed philosophical and free maxims. This phrensy

extended,

extended, he says, to the court of Mysore: where festivals to commemorate the abolition of slavery, and the death of *Marat*, were celebrated in the presence of Tippoo, and he consented to be called *citizen Sultan!!*

The writer asks, Did the revolution produce any really great men? He then particularizes the most distinguished, weighs them in the balance, and shews that they are found wanting. He subjects to this trial *Mirabeau*, *Marat*, *Roberspierre*, *d'Orléans*, and dismisses the claims of *Barnave*, *Brissot*, and *Danton*, with little ceremony. He seems to be aware of the indignation and contempt that have been so often excited by the adulatory addresses which have been made to the chief consul, and he advises that personage to prohibit the practice: yet he acts contrary to the regulations which he would have established, though with a moderation of which most of his countrymen have lost sight. He certainly exhibits a glowing picture of the exploits of *Bonaparte*, and withholds those parts which might interrupt the harmony of the colouring.

Finally, the author recommends it to the existing government to be of no party, but to extend equal protection to all its subjects; and the latter he exhorts to acquiesce in the present system, and to support and defend it, whatever may be their opinions, on account of the inevitable ills which would arise from a contrary conduct. The example set by the high dignitaries of the church, he conceives, deserves to be followed. Jo.

Art. XI. *De la Richesse Commerciale*, &c.; *i. e.* On Commercial Wealth, or the Principles of Political Economy applied to the Legislation of Commerce. By J.C.L. Simonde, Member of the Agricultural Society at Geneva, &c. 2 Vols. 8vo. Geneva, 1803. Dulau and Co. London.

If abstract speculations on commerce, ample investigations of its principles, and numerous accumulations of facts which relate to it, were indications of its flourishing state, we might conclude that France, at the present moment, was the most commercial nation on the earth: but, when we examine these labours, even slightly, we shall find that the reverse is the case; we shall learn not only that the trade of that country was brought to the very lowest ebb by the storms of the revolution, but we shall be farther informed, to our surprise, that the consular government has not taken one effective step for reviving and cherishing it, and that all the late measures have been prejudicial to its interests. Ministers and publicists seem, indeed, to have shared in the passions of the multitude with respect to it, and to have been swayed by them in their proceedings

and communications.—We do not consider this subject as very inviting, especially in the hands of French authors; because their late productions of this kind abound too much in theory, in chimerical and impracticable plans, and in unfounded invectives against the English; forming, in general, complete exemplifications of that species of labour which they term *unproductive*, and about which they treat so diffusely. The volumes before us, however, belong to a different class, and are worthy of the pen of M. SIMONDE, to whose deserts we have recently paid our tribute *.

It being the intention of this enlightened and benevolent author to give advice to the French rulers, concerning the line of conduct which they ought to adopt with regard to commerce, he tells us that he was aware that its propriety could not be felt nor its expediency discerned, if he did not expose the false reasonings of the new adepts, refute the errors of the economists, and point out the injudicious and contradictory conduct of governments; if he did not lay down all the principles of political economy, manifest their connection, and fortify them with new proofs. He owns himself to be a professed disciple of Dr. Adam Smith, and to have adopted his principles without qualification; and it must be acknowleged that no writer appears to have imbibed and understood them more fully, to have commented on them more ably, or to have applied them more successfully. In several of his pages, he only details what Dr. Smith had before taught; while in others we meet with important points, largely and satisfactorily discussed, which our incomparable countryman had slightly treated, or passed altogether without notice:—we allude to the remarks on intrinsic and relative value; on the identity of the interests of the consumers, and of the public; and on the tendency of importations. On these heads, the readers of Dr. Smith will derive instruction from the present author; and the balance of trade, the accumulation of specie, and other subjects which came under the consideration of Dr. S., are no sufferers by passing through the hands of M. SIMONDE. Had some portions of these disquisitions, however, been less diffuse, had he been able to infuse into them more interest, and to have given them a more amusing turn, he would have been intitled to commendation on these points, which we cannot at present allow him.

To the *practical* part of the performance, or that which treats of the legislation of commerce, every praise which we have bestowed on the *theoretical* is due; and it is free from the charges to which the latter is in our opinion liable. It will be read

* Rev. vol. xxxvi. N. S. p. 483.

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with pleasure and advantage by the commercial man, the statesman, and the scholar.

The science of government, M. SIMONDE observes, may be divided into two branches; the one embracing its political basis, the other including political economy, or its acts as directed to the advancement of the wealth, power, and revenues of a state. The discusson of the first branch, he says, is to be undertaken only among free subjects, and in free times; and he then adds that he shall decline the task. How far this is an intimation of his opinion respecting the government to which he is subject, and the days in which he lives, we shall leave the reader to form his own conjecture.

This publication, which is arranged in the form of chapters, is comprized under three leading subjects; namely, capital, price, and monopoly: the investigation of the first two forming the theoretical, while the latter comprehends the practical, and by far the most interesting and valuable part of the treatise. In the abstract discussions which occur, the author fully adopts the distinction laid down by Dr. Smith, between productive and unproductive labour; he even carries it farther, and rests his conclusions more fully on this position. Our limits will not permit us to state all the objections to which we deem this view of the question exposed: but we regret this omission the less, because we are certain that our controversy would be little more than a logomachy; being convinced that, when we came to define terms, our ideas and those of the author would be found to agree. We shall content ourselves with observing that the distinction, to which we refer, places in the same class, Beings not only the most discordant in outward form and shape, but such as possess properties the most opposite; the health and the plague of the social body; the principles of life, and the seeds of death. This is the case when the magistrate and the thief, when the teacher of religion or of science, and the seductress of innocence, are huddled together in the same rank. If we withdraw from society the classes here termed unproductive, industry will languish, and soon sink to the lowest ebb; which must infallibly happen, when we annihilate all the principal incitements to it, and cut its very sinews at the root. We have been accustomed to regard this distinction as a mere defective arrangement: but the perusal of some of the present writer's pages convinces us that it is a substantial error, which may lead to false conclusions.

According to M. SIMONDE, a manufacture which requires protecting duties resembles husbandry which braves climate and disregards soil. The formation of hardware and cotton manufactures in France, at the present period, he conceives to be

be as absurd and ill-judged an attempt, as would be the extensive cultivation of the vine in Great Britain. The exclusion of these British articles he considers as a tax amounting to fifteen per cent. on the above commodities, imposed on the French nation; and besides laying on this burden, it diverts capital from channels in which it would benefit the public, and at the same time yield more abundant and more certain profit to the individual. He fairly states the objections alleged against the commercial treaty between France and Great Britain, and completely refutes them. He asserts that the pretended balance was not so uneven as it has been asserted to be; that during its continuance in force, it was progressively approaching to an equilibrium; and that, in the year preceding the disturbance given to it by the revolution, the difference in favour of our country was trifling. Discussing the subject of free commerce as applicable to the case of Great Britain and France, he shews that, while it is the interest of the former, the share of benefit derived by the latter would be by far the largest. Experience, he says, teaches us most completely the ill effect of protecting duties. Geneva, and several other trafficking towns, since their incorporation with France, have had their trade subjected to these imposts: from which period it has been on the decline, and will be weighed down if the same system be continued. The inhabitants of these places are so far from regarding prohibitions as beneficial, that they have several times requested the government to restore things to their antient footing, and to allow to their commerce its former freedom; and if this liberty be withholden, we are told that many leading persons will quit the pale of the Great Nation, and fix their residence in those adjoining states in which the governments are less officiously kind.

On a late occasion, (see our last Appendix,) we took notice of the reasonings of M. *Blanc de Volx* in favour of a trading company with exclusive privileges. M. SIMONDE examines this hypothesis, and ably exposes its fallacy. He tells us that the number of companies which have been successively endued with exclusive rights in France has been considerable, and that all, or nearly all, became bankrupt. Having enumerated them, he observes that so many instances of failure should make us regard with disgust the creation of privileges, always burthensome to those who are subject to them, and seldom advantageous to those in whose favour they are established. In opposition to *de Volx*, he advises the government to suffer the trade with India to remain as unshackled and open as possible.

In favour of free commerce, besides adducing the decline of trade in the newly incorporated towns in which prohibitions have been

been recently introduced, M. SIMONDE instances the case of Switzerland; where no monopoly, no restraint of any kind on commerce, was ever known. He shews that the traffic of those states was in a most flourishing condition previously to their political disasters. He informs us that he has lately passed through that country more than once; and we were glad to meet with so favourable an account of the situation of that unfortunate region, from so impartial a pen. Switzerland, he says, cruelly laid waste by a war as unjust as it was destructive, rises out of the midst of her calamities with an energy which no one expected from her. In the whole canton of Schwitz, the theatre of the retreat of the Russians, no ruins are to be seen: Stantz and Stantzstadt, so barbarously burnt down, are more than half rebuilt: the canton of Ury, where a general (but accidental) conflagration aggravated the misfortunes of war, is actively repairing its losses; while those of Berne, Lucerne, Fribourg, and even the Vallais, are ready to forget the evils which they have suffered, provided that they are not renewed. In fact, Switzerland is still rich; and the prodigious capital, which human industry had there accumulated, every where closes the wounds inflicted on her. This, says the author, is a great example in favour of free commerce, and against excluding from a country the fruits of foreign industry: though it is true, he observes, that it was not to free commerce, but to civil liberty, that Switzerland owed the basis of its long prosperity. Certainly, among the numerous benefits enjoyed under that government, we ought not to reckon as the least, the emancipation of industry from the shackles and restraints imposed on it by the narrow views of other governments. May the Swiss people again find the happiness which they so well deserve! and may we, says this respectable writer, learn of them to estimate the value of every species of liberty!

To conclude: we may remark that, instead of offering ridiculous and fulsome adulation to the first magistrate; instead of fanning the vanity of a people, already too much subject to that infirmity; instead of favouring mischievous views of conquest, and extent of empire; instead of exciting jealousy against the prosperity of neighbours; and instead of recommending political nostrums to work effects not within the course of nature; M. SIMONDE traces the obvious course by which a great state may repair its dilapidated fortunes, gradually recall its antient splendour, and ultimately realize those inestimable and flattering advantages, which belong to the situation of a well administered and prosperous first power. We fear, however, that his sage and benevolent counsels will receive but a small portion of that attention to which they are so fully intitled.

ART. Jo.

ART. XII. AUGUSTINI PYRAMI DECANDOLLE, *Astragalogia; nempe Astragali, Biserrulæ, et Oxytropidis, necnon Phacæ, Coluteæ, et Lessertiæ Historia, Iconibus illustrata.* Folio. pp. 269. 1802. Imported by De Boffe, London. 8l. in Folio. 4l. in Quarto.

OF the 191 species included in this truly splendid work, 171 were described from plants in their natural state, and the remaining 20 mostly from dried specimens. Of the whole number, 50, which were either unknown, or which had not exercised the skill of the draftsman, have been designed by the celebrated *Redouté*, and engraved by eminent artists.

To Messrs. *Desfontaines*, *Lamarck*, *Jussieu*, *Delessert*, and other distinguished botanists, M. DECANDOLLE warmly acknowleges his obligation, for the various facilities and accommodations which they afforded to the prosecution of his laborious undertaking: an attempt which his modesty would have induced him to relinquish, had he been seasonably apprized that Professor *Pallas* was busied in the same career. Fortunately for the public, however, the whole of the MSS. and several of the drawings had been already honoured with the flattering approbation of the National Institute, and it was too late to recede. The subject, though apparently limited, is not yet exhausted; and to such monographers as PALLAS and DECANDOLLE, we may truly say, *vitulâ tu dignus et hic.*

From an attentive study of *Astragalus*, the author was almost unavoidably drawn to the consideration of some of its kindred tribes. *Linné*, *Jussieu*, and *Gærtner* had assumed, as a basis of distinction, the introflexion of the lower suture of the legume in *Astragalus*, and of the upper in *Phaca*. In directing his attention to that family of leguminous plants, which is distinguished by the bilocular or two-celled seed-vessel, M. DECANDOLLE seized on another botanical character, namely, the *mucronate*, or *blunt keel*; the former uniformly associating with the introflexion of the superior suture, and the latter with that of the inferior. From the variety of structure, then, observeable in the legume, he adduces his six genera of *Biserrula*, *Astragalus*, *Oxytropis*, *Phaca*, *Colutea*, and *Lessertia*.

Biserrula is distinguished by its plain, many-seeded legume, with compressed valves, and as many waving teeth on the back as there are seeds in the pod. The only known species is *B. pelecinus*, Lin.

Astragalus includes a numerous family of plants, distinguished by an acute keel, and a legume divided into two perfect or imperfect compartments by a partition which has its origin in the inferior suture. M. DECANDOLLE describes 142 species, though he excludes *A. Alpinus*, Lin. and *A. Lusitani-*

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cus of *Lamarck*, as they belong to his *Phaca*. In like manner, he removes to *Oxytropis*, *A. Montanus*,—*Campestris*,—*Uralensis*,—*Verticillaris*, and—*Pilosus* Lin., the *Annularis* of *Forsk*, the *Fœtidus* and *Viscosus* of *Villars*, and the *Deflexus*, *Leptophyllus*, *Cœruleus*, *Ambiguus*, *Setosus*, *Grandiflorus*, *Candicans*, *Caudatus*, *Songaricus*, *Triphyllus*, *Microphyllus*, *Vesicarius*, *Ampullatus*, *Floribundus*, and *Dichopterus* of *Pallas*.

Under *Oxytropis* (οξυς, *acutus*, and τροπις, *carina*) are comprehended those species which are furnished with a mucronated keel, and a legume divided into two compartments by a partition originating in the upper suture. Of this number, are several which have been removed from *Astragalus*, several which *Pallas* had described under *Phaca*, and some not formerly published,—in all thirty-three species.

A blunt keel and one-celled legume discriminate *Phaca* from the last mentioned genus; as its beardless stile and headed stigma distinguish it from *Colutea*. *Phaca Bœtica*,—*Frigida*,—*Alpina*, and—*Australis*, Lin., *Phaca Salsula*, and—*Arenaria*, Pal., *Astragalus Alpinus*, Lin., and two non-descript sorts, constitute its species.

The characters of *Colutea* are restricted to the beard along one side of the stile, an inflated and often gaping legume, of one compartment, and a blunt keel, equalling or surpassing the length of the wings. Thus are the herbaceous sorts rejected, and the *Arborescens*, *Halepica*, *Cruenta*, and *Frutescens*, alone retained.

Colutea Herbacea, Lin., and—*Perennans*, Jacq., constitute the new genus, *Lessertia*, so named in honour of Mons. *Delessert*. Its characters are, a blunt keel, an arched and beardless stile, a headed stigma, and a membranaceous one-celled legume, of an irregularly oval shape.

Of the above generic distribution, it may safely be asserted, that it manifests much painful accuracy, and a very intimate acquaintance with the minute shades of difference which prevail among families of plants very nearly allied. We should not, however, forget that artificial arrangements are valuable so far only as they are commodious and useful; and M. Decandolle might have avoided some unnecessary complexity by disregarding the fruit, and selecting his generic characters from the parts of the flower alone.

The substance of the author's remarks of an anatomical, physiological, and economical description, may be comprized in a very few sentences. The microscope reveals a diversity of structure in the hairs which are observable on the leaves of some *Astragali*. The air inclosed in the swoln seed-vessels of *Astragalus Cicer*, *Sida Indica*, *Cardiospermum Halicacabum*, and

Asclepias Syriaca, differs very little from that of the atmosphere:—but, if the pod be kept immersed in water for 24 hours, the oxygen gas disappears, and nothing but the azotic is found inclosed. Thus, too, the bladders of *Fucus Vesiculosus* are filled with azote when first taken out of the water, and with atmospheric air when they have remained dry for some hours.—Gum adragant may be obtained from more than one species of *Astragalus*; an infusion of the leaves of the *Glycyphylloides* has been recommended in cases of calculus and ischuria; the root of the *Exscapus* has been substituted for mercury in syphilis; and the *Cicer* has been cultivated as excellent fodder.

It belongs not to us to extend and multiply such scanty hints: but it behoves us to observe that, if the science of Botany be limited to mere correctness of classification, it must remain barren of utility to mankind. "It is worthy of being remarked," says the philanthropic *St. Pierre*, "that there is not a single genus of vegetables which does not afford, in some one of its species, a substance capable of being converted into nourishment for the human race." The diadelphous class especially abounds in useful species; and the history of any of its genera must remain incomplete, when all the valuable properties which experiment, or authentic testimony, has ascertained to reside in the individuals, are not recorded.

For the rest, the present publication is intitled to the praise which will, doubtless, be ascribed to its author for his ingenuity, correctness, and perseverance. Of his preliminary pages, it may be proper to observe that 24 are devoted to an enumeration of the essential and natural characters of his genera and species. He then proceeds to discuss the history of the species, on the plan which is usually pursued by the most approved botanical writers; and of which an example will convey a more accurate idea than many comments:

'XXV. OXYTROPIS VERTICILLARIS.

'*O. acaulis, foliolis* 4—6^{im} *verticillatis elliptico-acuminatis villoso-sericeis.*

'*Astragaloides hirsuta minor non ramosa, floribus purpurascentibus.* Amm. Ruth. p. 111. *n.* 149. *t.* 19. *f.* 1. malè.

'*Baïcalia flore atro-rubente.* Stell. Irc. 567.

'*Astragalus radicibus caulescentibus foliolis quaternis et quinis caulem radiatim cingentibus.* Gmel. Sib. 4. *p.* 63. *n.* 81.

'*An astragalus verticillaris.* Lin. Mant. 275 *.'

'* *Cùm Linnæus duas ex Ammanio diversas icones citasset pro A. suo verticillari, hanc speciem certò determinare nequeo. Easdem figuras pro Phacâ Sibiricâ citavit.*'

'*Radix*

' Radix lignosa, cylindrisa, parum ramosa. Caulis nullus.

' Folia è radice numerosa; stipulæ magnæ, petiolo adhærentes, villis longis hirsutæ, acutæ. Petiolus teres, hirsutus, 7—8 centim. longus. Foliola verticillata, 4—6 in quoque verticillo, sessilia, elliptico-acuminata, villoso-sericea, 10—12 mill. longa, 4—5 lata. Scapi radicales, erecti, folio longiores, hirsuti. Flores sessiles, capitati, demum spicati. Bracteæ lanceolato-lineares, villosæ, calyci æquales. Calyx cylindricus, villosus, quinquefidus; laciniis acutis, æqualibus. Corolla purpurea, calyce duplò longior. Vexillum oblongo-ovatum, obtusum, alas superans. Alæ stipitatæ, limbo oblongo hinc basi profundè auriculato. Carina basi vix bipes, apice intentiùs violacea, desinens in mucrone lineare, erecta, alas adæquans. Ovarium ovatum, villosum. Stilus in medio incurvus. Stigma capitatum. Legumina erecta, ovata, acuminata, stilosa, compressa, parcè villosa, calyce supernè fisso duplò longiora, vix semibilocularia; semina perpauca, rotundàto-reniformia. (V. S.)

' Habitat in Siberiâ.

' Affinis oxytropidis lanatæ. Differt quod non sit caulescens, et quod foliola sint multò pauciora.

' Ab oxytropide microphylla Pall. differt foliolis majoribus, paucioribus, ex utraque parte villoso-sericeis.'

We merely announce the following novelties as proofs of the author's successful industry; referring the curious reader to the work itself for more particular information:—*Phaca triflora, Oxytropis squammulosa, O. longirostra, O. brevirostra, O. glabra, Astragalus cracca, A. microcarpus, A. hispidulus, A. nanus, A. hirsutissimus, A. secundus, A. megalanthus, A. albicaulis, A. tuberculosus, A. macrocarpus, A. cephalanthus, A. pubiflorus, A. eriocarpus, A. brevicarinatus,* and *A. uniflorus.*

In every case in which the specific description has been taken from an inspection of the living plant, it is traced by the hand of a master; leaving scarcely any circumstance unnoticed, which the most scrupulous observer would wish to know.

A catalogue of doubtful species, and a copious index, are subjoined. The beauty of the paper, of the engravings, and of the junior *Didot*'s type, will gratify the taste of those who delight in splendid volumes. For the accommodation of those botanists, however, whose finances may happen to be in a *poetical* state, we should be glad to hear of a more humble impression.

Muir.

ART. XIII. *Histoire Naturelle des Rainettes*, &c.; *i. e.* The Natural History of Tree-Frogs, Frogs, and Toads. Dedicated to *B.G.E.L. Lacépède*, by F. M. DAUDIN, Member of the Society of Natural History, and of the Philomatic Society of Paris. Embellished with 38 Plates, representing 54 Species, painted from Nature. 4to. pp. 108. Paris. 1802. Imported by De Boffe. Price 1l. 1s. Boards. *

THIS volume commences with a summary, but very distinct statement of the characters which belong to the *Batracian* family of reptiles; or, in plain English, to the three genera of oviparous quadrupeds announced in the title. To this introduction are subjoined the following notices:

'Though the author has endeavoured to render his work complete, he cannot flatter himself that he has altogether succeeded; because several of the individuals from which he copied must have undergone some change in spirits of wine. He, therefore, invites foreign naturalists and travellers to paint or describe the animals in their living state, or, at least, before they are discoloured.

'All the Batracians, of which I gave abridged descriptions in the *Natural History of Reptiles, by Latreille*, will be marked in this new work by an asterisk, at the end of the Latin specific name. I should observe, however, that the descriptions, in their present form, include many additions, and some corrections.

'Of the drawings executed by *Barraband*, some were lent to M. *Desève;* who has merely reduced them, and published them, by mistake, *in his own name*, in the small edition of the Natural History of Reptiles, to which I contributed, along with my friend *Latreille*, for *Deterville* the bookseller.'

Each of the three genera is introduced by its distinctive marks; and its species, with their subordinate varieties, follow in order. The references prefixed to the specific articles are less multiplied and less circumstantial than we could desire: but 26 *hylæ*, 17 *ranæ*, and 31 *bufones* are duly exhibited, and described, for the most part, with laudable accuracy. The technical specific definitions are set down in Latin, and, usually, in the compass of one or two lines. To these succeed the details of physical appearance and habit, under the twofold title of *Caractère Physique* and *Caractère Habituel*.—Marginal notes, chiefly of a critical complexion, are sometimes added.

A short article will suffice for a specimen:

'XIV. MILK-COLOURED TREE-FROG. HYLA LACTEA.*

'*Hyla lactea, cum lineâ fuscescente à naribus usque ad oculos ductâ.*'

* The quarto edition, with coloured plates, sells at Paris for 50 livres, and the folio for 75.

'CARACT. PHYS. Length, an inch and four lines. Head small, triangular, and not obtuse; skin smooth, and quite of the colour of cream, with a small light brownish line proceeding from the nostrils, along the sides of the head, to the eyes; thighs and abdomen granulated. Fore feet with four half-webbed toes, the hind ones with five webbed; viscous knobs, somewhat large.'

'CARACT. HAB. It exists in America. That of the Parisian museum is taken from the Dutch collection. Its body is very fat.

'*Note.* This new species is not to be confounded with *Linné's Rana boans,* which is the lacteous tree-frog of *Daubenton* and of *Lacépède.*'

We might quote passages of greater length: but a rigid scientific brevity constitutes a distinguishing feature of M. DAUDIN'S performance, and recalls, by contrast, the more rhetorical and varied pages of the celebrated naturalist to whom he inscribes his volume. Indeed, the present author's merit seems to consist in the concentration of scattered materials already published, rather than in frequency of discovery or ingenuity of remark: though we meet occasionally with a new species, and with a singular felicity of extricating an established confusion of nomenclature. We are pleased also with the writer's simplicity and correctness of description: but he seldom makes us truly acquainted with the economy and disposition of the creatures which he undertakes to delineate. The work, however, is not destitue of useful and interesting observation.—Thus, under *Rana Paradoxa,* we find the following:

'This frog, which is frequently found in Surinam and various other parts of South America, presents a striking singularity of transformation, which misled MM. *Merian* and *Seba.* These two authors have asserted that the jacky passes from the frog state to that of tad-pole, and is then changed into a fish: but the facts which gave rise to this erroneous opinion are simply these: 1. Tad-poles of the jacky are found rather larger than the perfect animal, and furnished with only two hind legs. 2. Others are found of a size somewhat smaller, and with four legs. 3. These tad-poles have some resemblance to a species of American fish, from the peculiar form of their tail.'

These particulars are discussed more at large in the text, and are aptly illustrated by plates.

An opinion more generally received, but equally untrue with the former, is thus shortly exposed: 'It has been alleged that the pustules of toads are filled with a dangerous, nay mortal poison. This poison, however, is only acrid pus; by no means cleanly, I allow, but which at most may cause pimples, or a slight inflammation on the skin.'

In opposition to the assertions of respectable naturalists, M. Daudin assures us, from his own observation, that the common toad shuns water, and deposits its spawn in a deep hole, which it digs in the earth:—but this retreat is always in the neighbourhood of a subterraneous source.

Differences of aspect and habit, we apprehend, will completely justify the author's distinctions relative to *Rana pipiens*, —*ocellata*,—*grunniens*,—*clamata*, and—*halecina*; as well as his lines of separation between *Bufo vulgaris*,—*cinereus*,—*Roeselii*, and—*obstetricans*.—Of the cinereous, two varieties are quoted. 'A. Edge of the lips and extremity of the toes somewhat brownish. Inhabits the Jura mountains.'—'B. Has its dorsal warts and the glands behind the ears of a slight copper colour. I found it on a hill near Beauvais.'

For those professed naturalists who have taste and judgment to appreciate the present performance, we should be happy to select more copious extracts, did we not presume that they will have recourse to the book itself. From complaisance to our readers of a more general description, we are unwilling to add much to the liberal allowance of *Batracians* already served up to them in our reports of the works of Shaw and *Lacépède*.

Muir.

Art. XIV. *Essai sur l'Etude de la Minéralogie*, &c.; i. e. An Essay on the Study of Mineralogy, with particular Reference to the Soil of France, and especially to that of Belgium. By Rozin, Professor of Mineralogy, Botany, and Zoology, in the Central School of the Dyle, &c. &c. 12mo. pp. 332. Brussells and Paris. Imported by De Boffe. Price 4s. sewed.

Without the aid of M. Rozin's *avant-propos*, we should scarcely have conjectured that he meant to present us with a condensed view of his course of public lectures, delivered in the central school of Brussels. His title holds out no specific plan, his first pages exhibit no table of contents, and his text acknowleges no methodical pauses, vulgarly called parts, books, chapters, or sections. This affected contempt of visible and marked arrangement may give zest to a trim philosophic sermon, but must be regarded as a serious objection to an elementary treatise of any science, or of any portion of a science, of which classification forms a leading feature. A double index, of 36 pages, has its peculiar advantages: but it does not remove what we consider to be the principal defect in this manual. It is, however, intitled to no ordinary commendation; for it presents to the young student plain and comprehensive descriptions of most of the known mineral sub-

substances, without alluring him into the maze of theory; while it is calculated to convey useful local information to the more experienced observer. If it should not readily enable the mere beginner to designate with precision such fossil specimens as chance may throw in his way, the reason is to be sought rather in the nature of the subject than in any want of ability in the author. The principles of the mineral kingdom, when compared with the known species of plants and animals, are few indeed: but they exist not in nature in their simple state; and their combinations present a countless and perplexing variety of appearances, with such minute and almost imperceptible shadings, that external characters cannot always be safely assumed as a basis of distinct classification; while a knowlege of their component parts is, in many cases, to be acquired only by troublesome and delicate processes, and by modes of investigation not exempt from fallacy.

With respect to a notion which had long prevailed, that Belgium is destitute of mineral riches, it is properly observed that, independently of gold, silver, lead, and zinc ores, it contains porphyry equal to that of the antients, sand-stones of a peculiar conformation, and a blue marble, with white spots, excellently adapted to the purposes of building and sculpture. Various other important articles are pointed out in the course of the present volume: but, for the requisite information relative to the fossil shells, which are ranged in extensive beds in certain districts of the Low Countries, the learned professor refers to the curious details and plates in *Burtin's Oryctographie Belgique.*

We have been particularly pleased with the short but perspicuous explanation of *Lowitz*'s portable apparatus, and with the definitions of the ordinary tests and re-agents; which form a very suitable introduction to every system of mineralogy.

Aware of the prevailing influence of the Wernerian school in Germany and the north, M. ROZIN has judiciously annexed, in the margin, the Linnéan names of the articles which he describes. Though he manifests a preference for the ingenious arrangement of *Haüy*, he candidly observes that 'they who are able to appreciate the labours of the celebrated *Werner* need not to be informed that *Gmelin*, who ranks among the first of our mineralogists, availed himself of all the discoveries of the former, and of his principal pupils; and that he differs from them only in the adoption of a more simple arrangement, namely, that of *Linné*.'—Hence the latter may be advantageously used as a key to synonymy by the partisans of different systems. For want of some such contrivance, till the late work of *Brochant* appeared, (which we mean shortly to notice,) the

the system of *Werner* was misunderstood and misinterpreted by some of the most eminent French chemists.

It is now time to acquaint our readers, that this essayist begins with a comprehensive account of *mould*, or *vegetable soil*; then passes to the consideration of the calcareous and siliceous earths; to water, considered as a *combustible*, and even as *brittle*, when not *fused* by heat; and next to argil and sand, as having their origin in the decomposition of granitic mountains. Lava, basalt, and other volcanic productions, bring up the rear.

M. Rozin seldom loses sight of the geographical applications announced in his title page. It is to be wished that he had noted, with the same scrupulous attention, the writers who treat at large of the respective parts of his subject; and that he had more frequently alluded to the connection of the latter with the arts and the accommodations of life. In other respects, the information which he communicates is, generally, correct and important. At page 3, however, we were rather startled with something like an insinuation that vital progression may be traced in the formation, growth, and decay of mineral bodies.—From the author's account of *Phrenite*, we are led to infer that he has received no intimation of its existence in different parts of North Britain.—He is very unwilling to rank the *Diamond* among combustible bodies: but, after the experiments of *Rouelle*, *Darcet*, &c., it is vain to allege that we may resolve the supposed combustion into mere evaporation; for the burning ceases *in vacuo*.—*Ambergrease* is too slightly noticed as *amber* which has undergone some change; and we do not meet with the most distant allusion to the circumstances stated by *Swediaur* and other respectable naturalists, which *almost* prove it to be of animal origin, and, most probably, a morbid production of the spermaceti whale.—The conjectures, (p. 263.) relative to the state of the metals in the different planets, must proceed on the supposition that Mercury and Saturn are constructed like our globe, and that the degrees of temperature which they experience are regulated by their respective distances from the sun: but no missionaries have descended from these orbs, to inform us of such particulars.

The following notices of a recently discovered metal may, perhaps, gratify the curiosity of our readers:

'*Tantalium* is a new metallic substance, discovered by M. A.G. *Ekeberg*, of the Swedish Academy of Sciences. Its surface presents a slight metallic lustre, but its fracture, a dull blackish hue. It weighs 6½ times its bulk of water. It melts at the blow-pipe, with the addition of borate of soda, and imparts no particular tinge to the flux. It is insoluble in all the acids. Submitted, with caustic fixed alkali, to the action of heat, and then lixiviated, it partly dissolves in water,

water, and may be precipitated from the solution by means of an acid. Filtrated and dried, it assumes the form of a white powder, which is the oxide of *Tantalium;* and which, exposed to a strong heat in a crucible, without any addition but pounded charcoal, is again converted into a metallic button; or, in other words, into the *regulus of Tantalium.*

'The above is all that we yet know of this metal. M. *Ekeberg* has extracted it from an ore which he calls *Tantalite;* because composed of this metal and a mixture of iron and manganese, scattered in the form of irregular octaëdral garnets, of the size of a hazel-nut, in a matrix of milky flint (*silice laiteuse*), with micaceous spangles, in a mountain of the parish of Kimito, in Finland.

'It has been found in another place, combined with *Ytria,* or *Gadoline;* in which state, M. *E.* designs it *Ytrio-Tantalium.*'

M. ROZIN might have added that *Ytrio-tantalite* was long since known, and regarded by the German mineralogists as a crystallized ore of tin. Its characters are particularly noted in No. 70. of the *Journal des Mines.* **Muir.**

ART. XV. *La Medicine Clinique rendue plus precise,* &c.; *i. e.* Clinical Medicine rendered more precise and accurate by the Application of Analysis; or, A Collection of Observations on acute Diseases, with their Results, made at the Salpetriere. By Ph. PINEL, Chief Physician of that Hospital, and Professor in the School of Medicine at Paris. 8vo. pp. 432. Paris. 1802.

THE author of this publication is disposed to think that the science of medicine is capable of receiving as minute and accurate a classification as any branch of natural history; and he gives himself considerable credit for his successful exertions in bringing forwards an arrangement of diseases, founded on their more characteristic and permanent features, and confirmed by careful and numerous observations. 'We can ascertain,' says he, 'at what particular periods the different parts of natural history, such as botany, mineralogy, insectology, &c. began to form a regular body of doctrine, and to merit justly the name of sciences:—that a similar epoch has arrived in medicine, it was the object of my nosography to prove; and the intention of the present work is to demonstrate this fact, by examples peculiar to myself.'

After the decided opinion on the importance of his labours, which Mr. PINEL gives in this and many other parts of the present volume, we may perhaps, like another unfortunate dissentient, incur the imputation of possessing a degree of causticity and 'black misanthropy' (very foreign to the well-known meekness of our dispositions), if we venture to confess ourselves unable to discover all those traits of utility and excellence in

in his system of nosology, of the existence of which he has persuaded himself. When M. PINEL entered on the practice of his profession, it would appear, from his representations, that medicine was a perfect chaos, in which there were no guides, arrangement, nor order; and where there could exist no claim for its being considered as a liberal science. We are not, however, disposed with him to forget the labours of those great men who have preceded him in nosological investigation; and therefore we cannot forbear remarking that he might, without any material sacrifice to his own feelings, have availed himself, in the more early periods of his practice, of the classification of a *Sauvage* or a *Cullen* for the arrangement of his ideas.

We deem it unnecessary to enter fully into an examination of the propriety of this new system, and we shall only give the principal divisions of the synoptic table of acute diseases: observing on them that, in the author's endeavours to attain extraordinary accuracy and precision, he has paid too much attention to accessory and subordinate symptoms. Acute diseases he divides into two classes: *Primitive Fevers* and *Phlegmasiæ.* Primitive fevers comprize six orders; *Angiotenic, or inflammatory Fevers; Meningogastric, or bilious; Adenomeningeal, or mucous; Adynamic, or putrid; Alaxic, or malignant; Adenonervous, or pestilential.*—The phlegmasiæ are divided into five orders: they affect *mucous membranes; diaphanous membranes; glands, cellular membrane, and the viscera; muscles; and the skin.*—From these orders, the author forms his genera and species; and he employs a considerable part of the volume in the detail of cases designed to illustrate the various divisions of his system, with their numerous combinations.—The *Salpetriere* Hospital, the principal scene of his practice, affords very extensive and valuable opportunities for the observation of disease. It is appropriated to the reception of females alone, of whom it generally contains between 5 and 6000 of all ages. The general œconomy of this institution is represented as bad: but the manner in which the medical department is conducted does the author credit, and is well adapted both to his own improvement and the instruction of his pupils. The case of every patient is registered at length on admission into the Infirmary; and about thirty are made the subject of Clinical lectures.

Many useful practical observations are interspersed through this volume: but the treatment, in aiming at simplicity, becomes frequently inert. Decoctions or infusions of vegetables are liberally employed: but wine, opium, and bark, are much less used than in this country. Affusion of cold water in fever

seems

seems to be unknown; and in many cases of inflammatory complaints, particularly of the breast and trachea, bleeding seems to have been omitted, when the greater number of English practitioners would have considered it as indicated.

Yell.

ART. XVI. *Voyage à la Louisiane*, &c.; *i e.* A Voyage to Louisiana, and Travels on the Continent of North America, performed between the Years 1794—1798; containing an Historical Picture of Louisiana, with Observations on its Climate, its rich Productions, and the Character of the Savages; also important Remarks on the Navigation, on the Principles of Administration and Legislation best adapted to this Colony, &c. By B*** D***. Ornamented with a fine Chart. 8vo. pp. 390. Paris. 1802. London, imported by De Boffe. Price 7s. sewed.

To introduce their works in masquerade to the public is certainly no evidence of good taste in authors, and we are sorry to observe frequent examples of a practice so deficient in correctness. The book before us contains no *relation* of either voyage or journey, whether or not any such was performed; and the only apology or explanation for the omission is contained in the declaration of the writer, that 'this work is not a compilation, but the result of notes which he took on the Continent itself; and if the extreme distrust of the Spaniards in 1795, and in the years which followed, has prevented him from completing his voyage, he has been so near to the objects [meaning, we suppose, those which he has described] that he may be said to have seen them all.'—*Quod vidimus oculis, quod auribus audivimus, testamur et annunciamus vobis*—is the motto chosen by the author.

M. B— D— (whoever he may be) remarks on the insufficiency of the former accounts of Louisiana, and declares his belief that the one which he offers is as complete a history of that country as it is possible to form at present: that circumstances gave him such advantages, that it is impossible to dispute what he says, without injustice; and that his chart possesses such accuracy as to merit the most entire confidence. This chart is on a scale of not quite $\frac{3}{10}$ of an inch to a degree; and the reader will often look in vain, if he expects to find in it the places which are mentioned in the volume. In comparing it with other maps of North America, the principal difference that we observe consists in the greater extent which this map gives to the province of Louisiana: not in marking the limits, for they are not designated, but in spreading the letters which compose the name.—The author adds that nothing which is really essential has been neglected to render the work

useful in every part; and this panegyric, which appears under the form and with the title of preface, concludes with a notice that all those, who have interest in becoming acquainted with these distant regions, will often have occasion for his book, and that they may rest assured that nothing in its contents has been 'hazarded.'

In the commencement of this *Tableau Historique*, the author has discovered, through the obscurity of the old English, Spanish, and French accounts, that 'no country has so much right as France over Canada and Louisiana:' which claim he founds on the voyage of *Jaques Cartier*. As he does not acquaint us with his reasons for setting aside the rights of the native inhabitants, it ought not to create wonder that the discoveries of the English and the Portuguese to the North, and of the Spaniards in the Gulf of Mexico, should be passed unnoticed: yet it would have been some satisfaction if he had explained on what system of geography the country, at present called Louisiana, is comprized within the discoveries of *Jaques Cartier*. Having satisfied *himself*, however, of the equity of this title, he enters into a short dissertation on the character of the Indians (*les Sauvages*), and on the dispositions which they have manifested towards the Europeans. He says:

'When the Savages discovered that prisoners sustained no ill-treatment from the French, and that the utmost gentleness was practised towards them, they were astonished at such humanity: but what surprised them still more was, that good faith (*loyauté*), that frankness, that exactness in adhering to their word, which distinguish our nation. From that moment, they conceived for us the highest esteem, and the greatest friendship. All those who were in the neighbourhood of the French sought their alliance, and succeeded in obtaining it.'

The turn of the English comes next:

'This nation,' he says, 'civilized indeed, but which a boundless ambition often renders more barbarous than the Savages themselves, instead of entering into an amiable agreement to make a reasonable division with us, has always allowed itself to be influenced by mercantile cupidity, and has never ceased to irritate the Indians against us. What has been the result? The Savages, whom nature, in some cases, sufficiently enlightens, have perceived the ambition of the English,—the shameful means which they employ, and the ferocity of their policy; and every time that a choice has been in their power, they have given the preference to the French, because in the French were discovered a thirst for glory, brave actions, and principles of generosity.'

Whatever may be thought of the justice of these accusations, perhaps there might be some difficulty in proving the title of the French to all the encomiums which the author has bestowed

stowed on them, for their conduct towards the native Americans.

After this essay on characters, we have a short review of the history of Louisiana, from the earliest establishment of the French in that province to the time of its being ceded to Spain. Following the example of some of his predecessors who have written or professed to write American Travels, the author has introduced orations, said to have been delivered by Chiefs of the Indians: but his narrative and his descriptions possess too much of strong colouring, often heightened by those apostrophising addresses which abound in the literature of France, more than in that of any other country. In this historical picture, nevertheless, much interest is excited by the account of the cession of Louisiana to Spain; which exhibits the unfortunate condition of the inhabitants of a colony suddenly discarded by the mother country, and, without their having been in any way consulted, transferred to the dominion of a foreign power.

The advantages which the possession of Louisiana would yield to France, by increasing her commerce and the number of her shipping, and by being to her a nursery for seamen, are duly pointed out; and the expence which the colony will occasion to the mother country, the author insists, has been greatly exaggerated in the former representations. Population, however, is wanted; for, without reckoning the natives and the negroes, he estimates the number of persons in Louisiana at not more than 30,000. To remedy this defect, several expedients and regulations are proposed. 'France,' he says, 'without missing them, might send every year a thousand families to Louisiana; and at the end of ten years, there would be enough to form an immense population. This measure would dispose of numbers of young beggars who are a dishonour to the nation, and who perpetuate the love of idleness. It is, however, necessary that those who are sent by the government should be healthy and young, and especially that the women be not 50 years of age.' In another place, he recommends that honest people only should be sent; and that those whose conduct should be found not to answer the political views of the colony should be turned away. The slave-trade is proposed as another means of assisting the population; and here some maxims are advanced, which, if admitted, would afford an easy solution to the long-contested question of the justice of that trade. 1st, No great nation can do without colonies. 2d, No slaves, no colonies. 3d, The slave-trade is so favourable to the Africans themselves, that policy accords with humanity in prescribing

its continuance. 4th, Liberty is a sort of food which does not agree with every stomach.

The accounts, as well as the descriptions in this work, which relate to the Indians, are of too general a nature to have the power of introducing a reader to their intimate acquaintance; an effect which has frequently been produced by travellers, in their relations of the most simple incidents. When the native Americans are mentioned, the author almost constantly applies to them the term *les Sauvages*. However truly this appellation may characterize them, the frequent use of it has not the most *civilized* appearance.

It is here related of the *Chactaws* (a people who dwell near the southern part of Louisiana), that jugglers or conjurors are their physicians: yet 'it must not be imagined that these physicians are entirely ignorant. They know perfectly how to cure the bite of the rattle-snake, and that of all other venomous animals. They succeed in healing gunshot wounds, and yet they use neither lint nor plaster: they reduce a certain root to powder, and blow it into the wounds; and with another powder, at the proper time, they make them heal and cicatrize. They have also a decoction of roots with which they bathe wounds that are gangrenous, and succeed in curing them.' These, surely, were secrets worth learning and communicating: but the author has not given any additional information concerning the roots, nor even the name by which the Indians called them; and he appears to have been unconscious of the omission.

We shall not farther extend the account of this performance; to which the late political discussions respecting Louisiana attracted more of our attention than has been rewarded. It is evident that the author's views are taken in accordance with the design of France to retain the possession of that country; and the late information of its cession to the Americans renders many of his remarks inapplicable. The reader will not be surprized to find that it contains less information than he might expect, when the author acknowleges that he is not a botanist; and that with the sciences in general, he has very little acquaintance. Without such qualifications, it was not very advisable to attempt to compose a statistical description of a large province, and to explain the interests of the mother country concerning its establishment.

Capt. B....y.

ART.

ART. XVII. *Mémoires sur les Fièvres Pestilentielles & Insidieuses du Levant*, &c.; *i. e.* Memoirs on the Pestilential and Insidious Fevers of the Levant; with a Philosophical and Medical View of Lower Egypt. By PUGNET, Physician in the Army of Egypt. Dedicated to the First Consul. 8vo. pp. 266. Lyons and Paris. 1802. Imported by De Boffe, London. Price 5 s.

THE first part of these memoirs is occupied by a general and interesting sketch of Lower Egypt; in which the author, after a survey of the physical state of the country, and the manners of the inhabitants, gives some curious information on the state of medical opinions and practice among them. He afterward enters into an examination of two important questions; first, whether the plague is endemic in Egypt; and secondly, whether it is possible to banish the disease from that country. Both these inquiries he answers in the affirmative. That the plague is endemic in Lower Egypt, he thinks, is proved by the uniform testimony of antient and modern writers; who continually represent it as being regularly visited by this scourge. He considers it as highly infectious, but as requiring a certain state of the air to favour its progress; and, though the seeds of the contagion remain inactive during the warmth of summer, he is of opinion that they are never altogether destroyed. In order to diminish its ravages, and finally to banish it, he recommends the constant use of quarantines and lazarettoes; and the employment of such measures for preventing the origin, or destroying the activity of contagion, as experience has demonstrated to be effectual. He does not seem to be acquainted with the use of mineral acid purgations for this purpose.

The three next memoirs give an account of the plague as it appeared in Syria, and at Damietta and Cairo. The last is on the subject of the Dem-el-monia, a disease which has been described by Prosper Alpinus, and which is very malignant and fatal. It is so called from two Arabic words signifying *water* and *blood*; it being meant from their combination to imply, that these two humours are principally altered in the disease.—The author is of opinion that the Dem el-monia differs from the Typhomania of the Greeks; and he describes it as being chiefly characterized by a vomiting, pain of the head, and phrensy, which attack suddenly, and speedily put an end to existence. Bark in large doses is the remedy to which he principally trusts for a cure.

Yell.

ART.

ART. XVIII. *Notice des Ouvrages*, &c.; *i. e.* Notice respecting the Works of M. *D'Anville*, to which is prefixed his Eulogy by M. *Dacier*. 8vo. pp. 120. Paris. 1802. London, De Boffe.

THE object of this *Notice* is to announce a complete edition of the works of this celebrated geographer, now preparing at Paris, and for which subscriptions are solicited. We highly approve the undertaking, and have no doubt of its obtaining ample encouragement. M. *D'Anville*'s fame is not confined to France. By his labours, the study of geography has been greatly facilitated; and he is one of many instances, which prove how much may be accomplished by the talents of an individual, when they are directed with uniformity and perseverance to a single object or pursuit. Though he was never more than forty leagues from Paris, he has given the site of places with so much precision, in the various maps and charts which he executed, that voyagers and travellers have often acknowleged with gratitude his singular accuracy. A consciousness of the distinguished service which he had rendered to his favourite science contributed to make him, as he advanced in life, vain and narrative: but his eulogist excuses this common defect of age, by observing that he united to the qualities which tended to form a great geographer, all the virtues of an estimable man.

As this eulogy is copied from the 45th volume of the Memoirs of the Academy of Inscriptions, and as no new particulars are exhibited of the life of *D'Anville*, we shall not quote details which are already before the public, especially as he died so recently as in January 1782, in the 85th year of his age. It is sufficient for us to add that, to the eulogy and the catalogue of his works, is prefixed an advertisement explanatory of the terms of the subscription. The proposed new and complete edition is intended to form six handsome quarto volumes, each containing 6 or 700 pages, accompanied with an Atlas comprizing 62 maps and charts. It will, in all probability, be extensively acceptable; and since we have strangely neglected in this country the cultivation of the science of geography, (though indeed we have a Major Rennell among us, whom the French justly compliment with the title of the *English D'Anville*,) and all our geographical books labour under the want of a good Atlas, we may be allowed to hope that this publication will be translated into English, and the maps and charts carefully copied.

Mo-y.

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